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WESTINGHOUSE

Kitchen Planning

MANUAL

A practical book of Kitchen Planning Fundamentals and Standard Kitchen Plans for architects, kitchen engineers, builders and complete electric kitchen retailers.

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Chapter I

FUNDAMENTALS OF KITCHEN PLANNING

Range and Serving Center *Sink and Dishwasher Center* *Refrigerator and Preparation Center*

The Basic Idea

Work in any size kitchen boils down to just three major tasks:

1. Storing food and preparing it
2. Cooking and serving it
3. Cleaning up

To do these jobs easier, quicker and better, the homemaker needs an electric range, refrigerator and dishwasher—each *serviced* by a group of storage cabinets and a stretch of work surface. Each division—of appliances, cabinets and work surfaces—is called a *work center*.

These three *centers*, properly arranged and outfitted with utensils, dishes, equipment, etc., and in the right relation to each other—so work flows in a straight line from one *center* to the next—make up the basic planned kitchen.

Organization of each Center Important

The organization of each *center* is just as important as its relation to the other two. Food supplies, utensils, equipment, dishes, et cetera, must be grouped and arranged properly in each *center*, or the kitchen loses some of its over-all, step-saving efficiency.

As the result of studying the steps and motions during the preparation of thousands of recipes and menus, Westinghouse has determined a "best way" to organize each *center* in the Westinghouse ELEC-TRI-Center Kitchen.

Refrigerator and Preparation Center

For complete convenience, this *center* should be located near the outside entry where food is delivered.

Here should be grouped perishable and non-perishable foods, all sorts of baking dishes, salad molds, cake tins, pie pans, flour sifter, graters, mixer, et cetera, because they are first brought into use in this *center*.

This arrangement makes it possible to prepare either a single recipe or food for an entire meal with a minimum number of steps. There should be a generous work surface next to the refrigerator for the actual preparation. As a matter of fact, the most ideal arrangement is a *continuous* work surface, from refrigerator to sink, as so much preparation—paring vegetables, et cetera—requires the use of the sink.

There must be sufficient space between work surface and wall cabinets for the mixer; 16″ is standard.

Range and Serving Center

The Range and Serving Center is located near the door to the dining room for convenience in serving.

Following the principle of storing equipment at the point of first use, frying pans, griddles, pot lids, cooking cutlery, coffee maker, tea pot, bread and pastry, toaster, et cetera, are kept in this *center*.

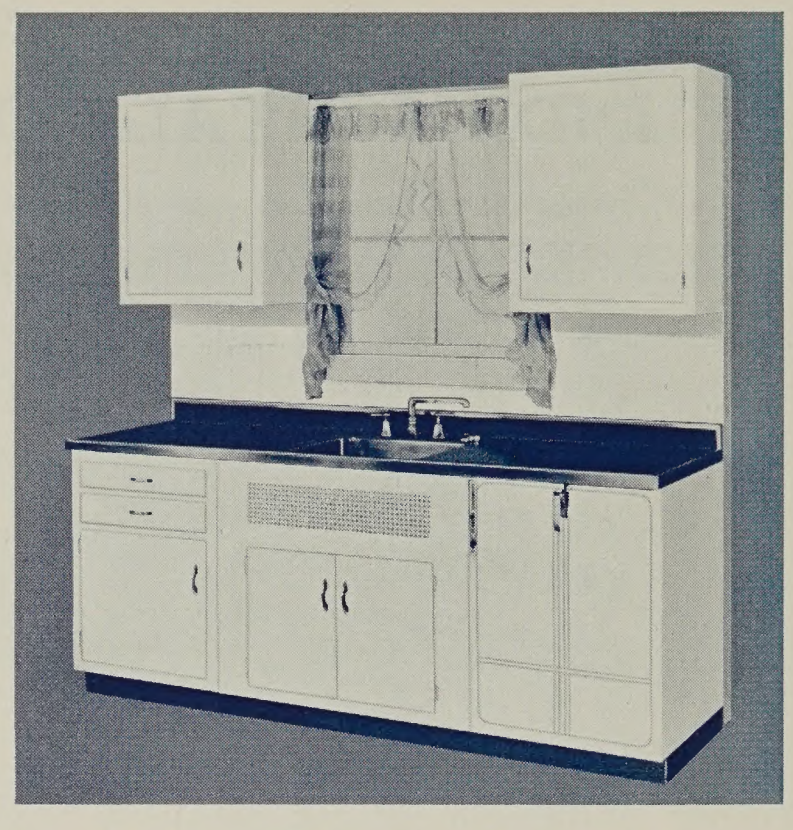
Since most serving dishes are first used at the range, they also are kept here.

Because a Westinghouse Electric Range imposes no danger from flames, it is safe to install upper cabinets 18″ above the range.

Sink and Dishwasher Center

Water being used for both preparation and cooking, this *center* should always be stationed between the Refrigerator and Preparation Center and the Range and Serving Center.

A generous work surface, so necessary in the



cleaning-up process, flanks both sides of the sink. According to the established principle of storage, this *center* houses the silver, paring knives, saucepans used for cooking with water, cleaning materials—and provides a ventilated compartment big enough for a week's supply of potatoes. Wall cabinets above the sink and dishwasher hold all glassware, and china not stored over the range.

Wherever possible, sinks should be equipped with double drainboards. A backsplasher—from 3″ to 8″ high—should be used back of the sink proper. Lower ones from 1″ to 3″ at the back of all counters make cleaning a simpler task. Sinks are generally placed under a window. This is optional however. The dishwasher is usually placed at the right of the sink as it is slightly more convenient for most persons—though conditions at times require its location at the left. It is perfectly good practice to locate it there when necessary.

Electric Water Heaters and Kitchen Planning

The electric water heater is always considered essential to good kitchen planning, and is a "silent partner" of the Sink and Dishwasher Center, for good mechanical dishwashing results depend upon a properly controlled, adequate hot water supply. The square models are most appropriate for kitchen installations. Whether the water heater is located in the basement or the kitchen is not as important, as the fact that the modern electric kitchen, to be complete, must have this efficient appliance.

CABINET STORAGE REQUIREMENTS

Thanks to five years of intensive research, a scientific formula has been developed to determine the *correct* amount of cabinet storage for homes of every size.

This dependable method was developed by studying and measuring the kitchens and pantries in more than 5,000 homes.

The number of persons in the family cannot be taken as a guide to the amount of storage space required, because that number changes from time to time. It was established that the number of bedrooms determines how many adult persons the house is designed to accommodate—how many persons can live normally in the home. The master bedroom accounts for two adults and the other bedrooms for one each. Thus, a three-bedroom house would normally accommodate four adults.

In other words, the number of bedrooms in a residence establishes the *normal occupancy*. It is upon *normal occupancy* that all calculations of storage requirements must be based for a satisfactory installation.

NORMAL OCCUPANCY OF RESIDENCES

Number of Bedrooms	Number of Persons
1	2
2	3
3	4
4	5
5	6

Formula: Cabinet Storage Space

Further research revealed that six square feet of *upper* cabinet shelf space must be allowed for each adult. After true normal occupancy was determined, it was found that the equivalent amount of shelf space for one person, or six square feet, should be added for entertaining, and another six feet for accumulation. This factor of adding *two persons* in the formula, for entertaining and accumulation, has been proved by innumerable field tests and various social and sectional strata to provide adequately for these conditions in the average home.

Upper cabinet storage space is the cabinet storage space *above* the counter line. This square footage applies to shelf areas only. Cabinet spaces above refrigerator or broom closet are not considered in this formula, as they are somewhat inaccessible and their areas are small.

Base cabinet storage space is calculated on a *linear front foot basis*, because the many variations in this type of storage make a square-foot-shelf-area calculation needlessly complicated. Base cabinets should occupy all the space beneath upper wall cabinets not required by range, refrigerator, and dishwasher.

An exception is when maximum amount of linear footage of base storage is available, with a shortage of upper storage space, due to window locations. In such cases, make up the difference by installing an upper cabinet, or a tall shelf cabinet, elsewhere in the room—usually in a corner. It is unnecessary to install another base cabinet under this. The important thing is to reach the balance of storage and shelf space *above* the counter. Substandard storage spaces reduce efficiency—make for poor housekeeping—and are the bane of the occupant's existence.

STORAGE REQUIREMENTS FOR RESIDENCES

Number of Bedrooms	Upper Shelf Storage Sq. Ft.	Base Storage Linear Feet Minimum	Base Storage Linear Feet Maximum
1	24	3	4½
2	30	4½	6
3	36	6	7½
4	42	7½	9
5	48	9	10½

STORAGE REQUIREMENTS FOR APARTMENTS

	Upper Shelf Storage Sq. Ft. Min.	Upper Shelf Storage Sq. Ft. Max.	Base Storage Linear Feet Min.	Base Storage Linear Feet Max.
1 room with alcove kitchen and in-a-door bed	8	12	1¼	2
1 bedroom	12	18	2	3

The slight variations in storage requirements for apartments apply only to the two smallest sizes of apartments. For apartments with two or more bedrooms, use the table given for residence storage requirements.

WESTINGHOUSE EQUIPMENT SPACE REQUIREMENTS

Size of Home	Recommended Refrigerators: Model	Recommended Refrigerators: Width of Space Required	Recommended Ranges: Model	Recommended Ranges: Width of Space Required	Recommended Dishwasher: Model	Recommended Dishwasher: Width of Space Required
One Bedroom	4 cu. ft.	25″	Coronet or Conqueror	22″ 39″	DW-31	24″
Two Bedrooms	5 cu. ft.	29½″	Challenger or Diplomat	39″ 39″	DW-31 or DW-32 or DW-33	24″ 48″ 48″
Three Bedrooms	6 cu. ft.	31″	Dictator or Regent	39″ 43″	DW-31 or DW-32 or DW-33	24″ 48″ 48″
Four Bedrooms	8 cu. ft.	33″	Emperor	43″	DW-31 or DW-32 or DW-33	24″ 48″ 48″
Five Bedrooms	8 cu. ft.	33″	Emperor	43″	DW-31 or DW-32 or DW-33	24″ 48″ 48″

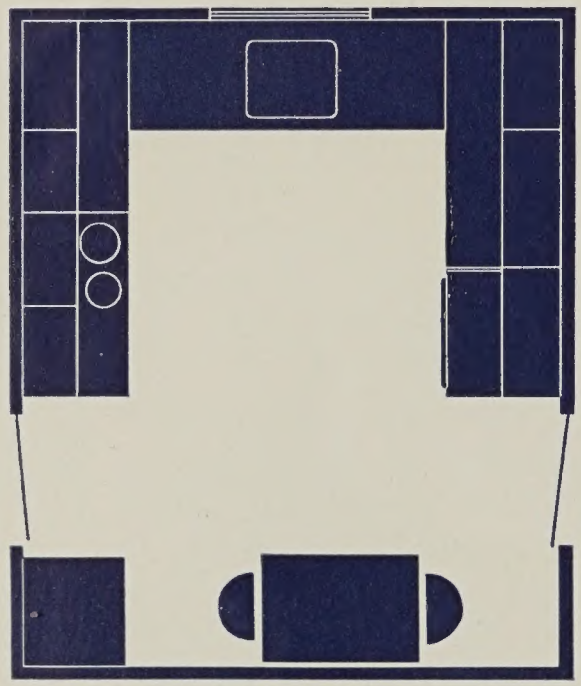
Minimum dimensions are given in the table on page 5 because these large appliances are of absolute dimensions and cannot be squeezed into smaller spaces or cut down in the field.

Westinghouse Ranges and Dishwashers are uniformly 36″ high. All work surfaces of cabinets, therefore, should measure 36 inches from the floor. They should also be 25″ deep, to conform to uniform appliance depth. Wall cabinets should be hung to provide 16 inches between work surface and underside of cabinets except over the range, where 18″ is the minimum.

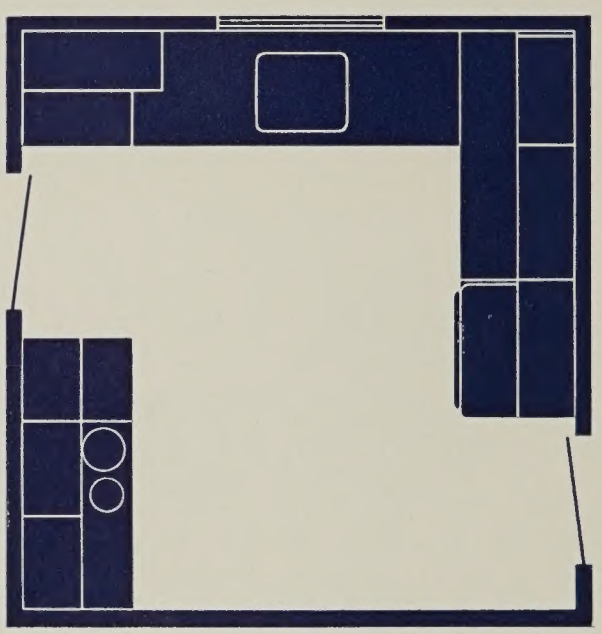
ONLY 7 KITCHEN TYPES

1. "U" Kitchen: The most ideal, because work surface is continuous around three sides of the room and traffic is kept out of working area.
2. Broken "U" Kitchen: Usually requires minimum of structural changes.
3. "L" Kitchen: Highly efficient, with two walls left free for door and window openings.
4. Broken "L" Kitchen. This type, like the broken "U", eliminates expensive structural changes.
5. Individual Center Kitchen: The logical solution for the badly cut up kitchen.
6. Two-wall Kitchen: An ideal arrangement for the small, narrow room.
7. Straight-wall, or apartment type, kitchen: Offers maximum convenience in a minimum of space.

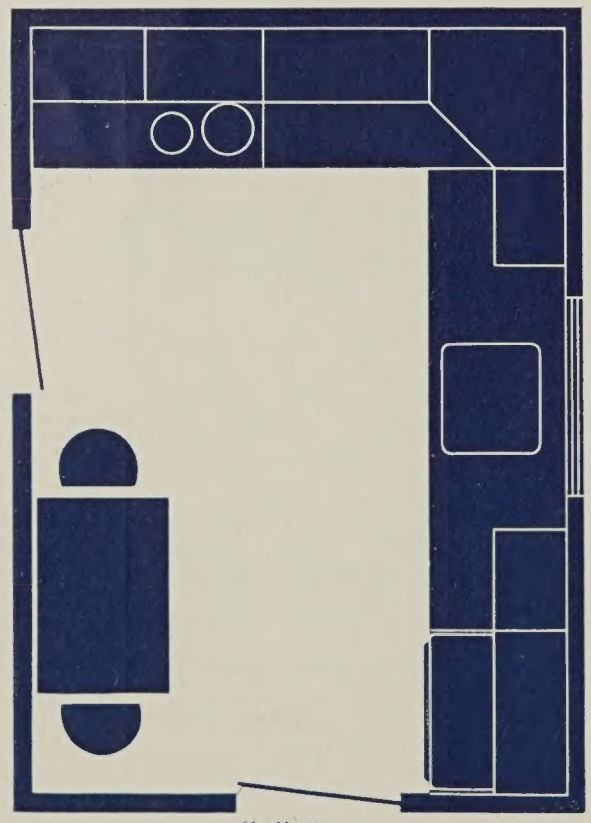
These seven types are shown in diagram, and discussed more in detail on pages 16 to 28, where plans drawn to scale are reproduced for your use.



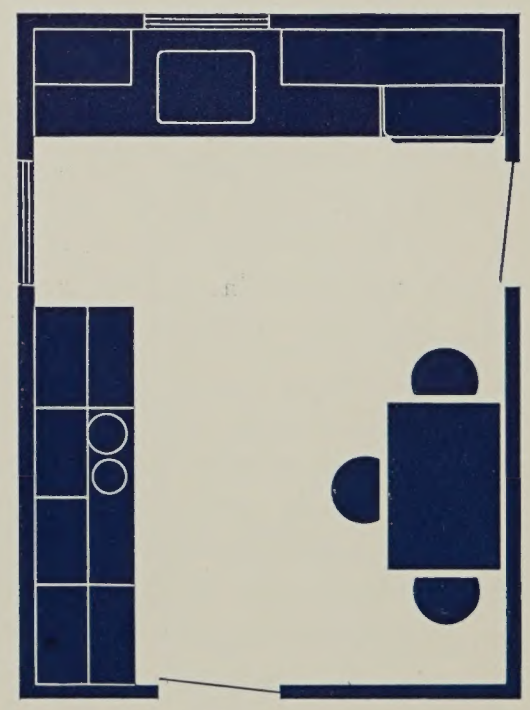
"U" Type



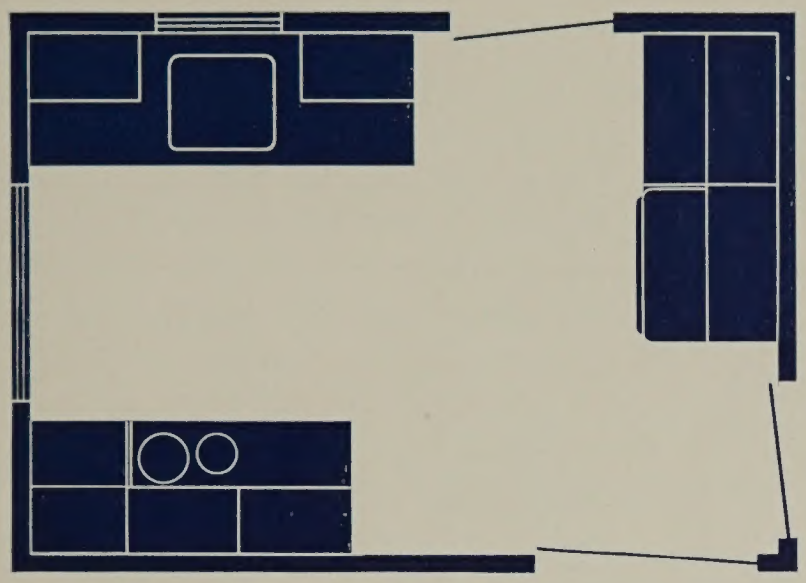
Broken "U" Type



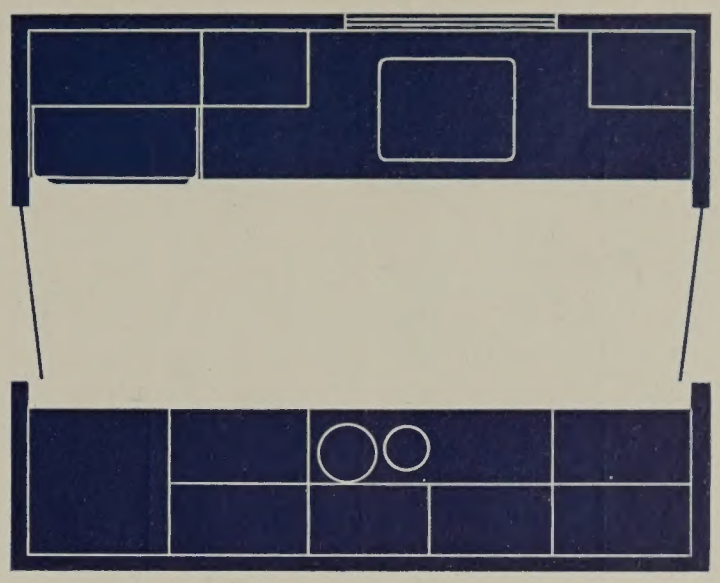
"L" Type



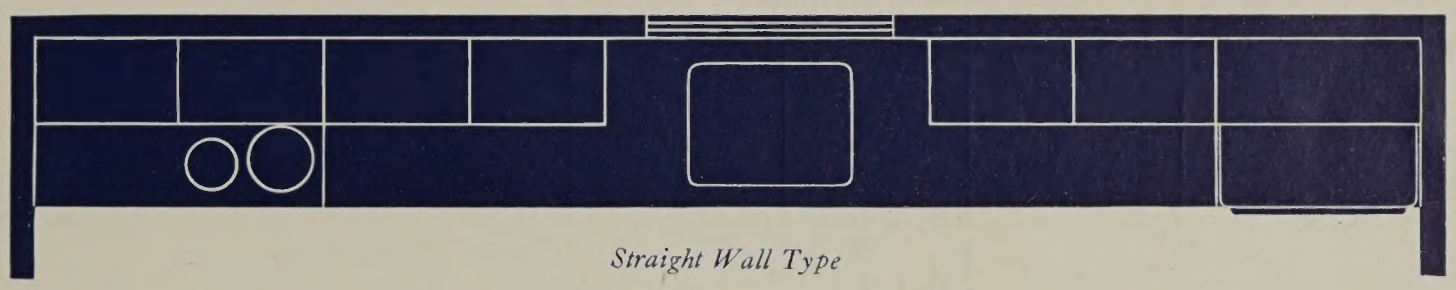
Broken "L" Type



Individual Center Type



Two-Wall Type



Straight Wall Type

COLOR IN THE KITCHEN

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The laboratory-type of kitchen is popular with few women. The modern trend is to color. Color expresses personality. Color combinations are infinite, and should be worked out in walls, draperies, bric-a-brac and floor coverings. As a rule it is wiser to find out the client's color preference, and then create a color scheme for her.

Against a uniform background of white kitchen equipment and cabinets, made standard by practically all manufacturers, it is easy to plan such a kitchen color scheme because it involves few materials and colors.

Exposure above all else is important in selecting colors. Cool colors like grey and green for the bright, sunny room, and warm shades like yellow and red for the dark and gloomy kitchen are the accepted rule. The size of the room is important also. The small apartment kitchen can be much gayer than the larger room.

The floor should be relatively dark and harmonize with the dominating wall color. By using inlaid strips in linoleum floors, unusual and attractive color accents may be obtained.

If a wainscot line is desired, it should be established at the bottom line of the wall cabinets as a boundary of the tiling, linoleum or other materials used above the work surfaces. This line may also be used to good effect in grading up the wall colors from dark to light, placing darker colors below and lighter colors above.

Ceilings must be kept light for two reasons: attractiveness and good illumination. Kitchen experts usually prefer to paint the soffit the color of the walls rather than the color of the cabinets or the ceiling.

The 16 color schemes worked out by Mary Davis Gillies, McCall's Magazine, may be helpful in guiding clients to a proper choice. The color charts shown on the following page are reproduced through the courtesy of McCall's.

WARM COLOR SCHEMES FOR DARK KITCHENS

Cabinets	Floor	Walls	Doors and Window Muntins	Cornice	Window Curtains and Blinds or Shades	Accessories
White	Blue Marbleized Linoleum	Ivory	Red	Ivory	Shades or Blinds—Ivory Tapes —Red Curtains —Red	Red-Blue
White	Black Marbleized Linoleum	Rose-Beige	Beige	Beige	Blinds —Beige Tapes —Rose-Red Curtains —Rose-Red	Rose-Red Black and Copper
White	Green Marbleized Linoleum	Clear Light Yellow	Green	Chromium Strips	Blinds —Green Tapes —Yellow Curtains —Yellow and Green	Red-Orange Green and Black
White	Black Marbleized Linoleum, Red Inserts	Lipstick Red	White	Chromium Strips	Blinds —Lipstick Red Tapes —White Curtains —White Oil Cloth Red Tape Trimming	Black, White and Red
White	Light Brown Marbleized Linoleum	Lipstick Red	White	Chromium Strips	Blinds —Cocoa Brown Tapes —White Curtains —Blue-Green	Blue-Green Metallic Tones, Cocoa Brown
White	Terra Cotta Linoleum	Mustard Yellow	Pale Grey	Chromium Strips	Blinds —Terra Cotta Tapes —Grey Curtains —Yellow	Grey, Black Terra Cotta

COOL COLOR SCHEMES FOR SUNNY KITCHENS

Cabinets	Floor	Walls	Doors and Window Muntins	Cornice	Window Curtains and Blinds or Shades	Accessories
White	Blue Marbleized Linoleum	Pale Lime-Green	Blue	Chromium	Blinds or Shades —Lime Green Curtains —Blue	Blue,Green and Yellow
White	Black Marbleized Linoleum, Yellow Inserts	Pale Ice Blue	Ice Blue	Chromium	Blinds or Shades —Yellow Curtains —Grey and Yellow	Black, Grey, Aluminum and Yellow
White	Light Clear Green Linoleum	Pale Ice Blue	Ice Blue	Chromium	Shades —Delphinium Blue Curtains —Green	Green-Blue Aluminum and Yellow
White	Citron Green Linoleum	Pale Yellow	Pale Yellow	Chromium	Shades or Blinds —Citron Green Curtains —Pale Yellow and White Modern Chintz	Aluminum and Yellow
White	Grey Marbleized Linoleum	Grey(Micarta) Horizontal Joints Covered With Copper Strips	Grey	Copper Strips	Shades or Blinds —Grey Curtains —Metallic Copper Revolite	Aluminum Copper and White
White	Brown Linoleum	Blue	Blue	Tan	Shades or Blinds —Blue Curtains —Tan	Blue, Tan and Orange

PLANNED KITCHEN LIGHTING

The kitchen is the workshop of the home and should, therefore, be well illuminated. It is vitally important that the room be free from glare and shadows. A central ceiling fixture is not enough. Supplementary fixtures are needed—and so placed that the homemaker never works in her own shadow, regardless of where she stands. Every type kitchen requires: Light for general illumination and light at the range, refrigerator, and sink work centers.

General Lighting

A central ceiling fixture of semi-direct, semi-indirect or totally indirect design should be installed to provide general room illumination, (See Figures Nos. 5, 6, 7.) The watt size of the lamp in it depends upon the size of the kitchen. A 150-watt lamp is about right for a 10′ x 12′ kitchen, if supplemented by other fixtures.

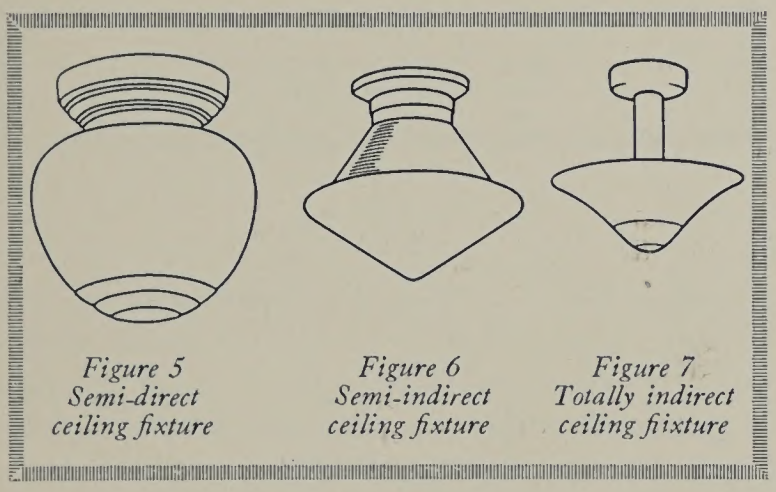

Figure 5
Semi-direct ceiling fixture

Figure 6
Semi-indirect ceiling fixture

Figure 7
Totally indirect ceiling fixture

Light at the Centers

The second essential for a correctly lighted kitchen is to provide ample light at each *center*. Otherwise the housewife stands in her own light, with her back to the central ceiling fixture, thus casting a shadow over her work.

Figure 8
Panel light built in the bottom of the wall cabinet

The surfaces of the work centers may be lighted by lamps built in the bottom of the wall cabinets; or by lumiline lamps (a tubular lamp 12 or 18 inches) in glass or metal reflectors mounted under the cabinet (Figures No. 8 and 9).

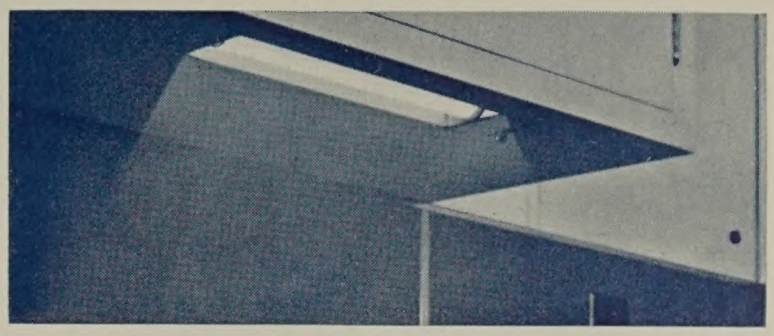

Figure 9
Lumiline lamp installed in bottom of the wall cabinet

A lamp concealed under an extended apron on the cabinet front (Figure No. 10) is also used.

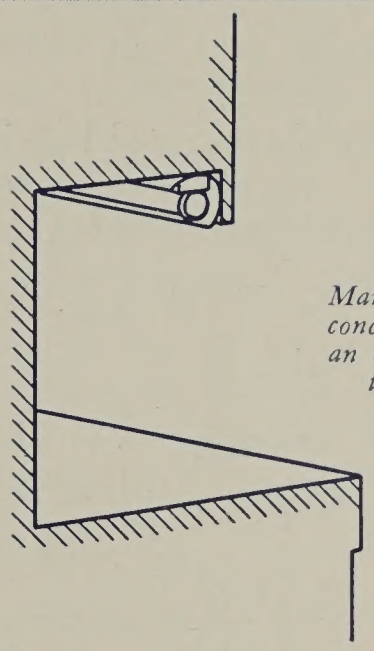

Figure 10
Many architects, prefer concealing lamp under an extended apron on the cabinet front

Light at the Sink

The Sink and Dishwasher Center is usually placed under a kitchen window. Therefore, the architectural features of the window determine to some degree the kind of local lighting planned here. The lighting may be a pair of wall brackets, (see Fig. 11), a smaller unit matching the central ceiling fixture, or a diffusing panel recessed in the soffit over the sink (see illustration No. 12 on next page). The panel requires a lamp of at least 100-watt intensity. A choice of one of these units will provide adequate light with no shadows for this important *center*.

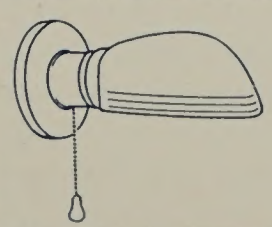

Figure 11
The popular wall-bracket light

Light at the Range

Unless a well-designed lighting unit is incorporated as part of the range, special lighting must be planned. Good illumination at the range is a safety as well as a convenience. Wall brackets with glass or metal shades may be located over the range (see illustration No. 13).

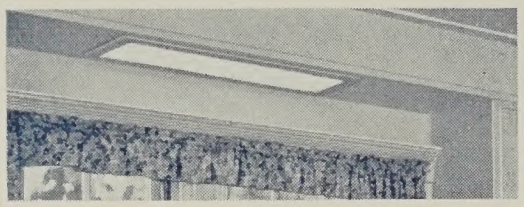

Figure 12
The over-sink diffusing panel recessed in the soffit

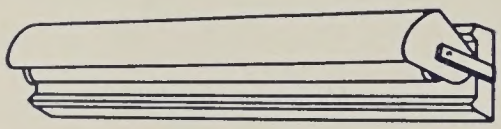

Figure 13
Wall bracket with metal shade

If cabinets are built over the range, lights may be concealed under the bottom to illuminate the range. Lamps of 40 to 60-watt capacity are recommended.

Switches and Convenience Outlets

The switches, for the ceiling light, are usually located near the doors so there is no need to grope in the dark.

The local lighting units over the sink, range and work centers should be controlled by switches below or on the fixture. Wall units are available for work centers that combine a light and a convenience outlet (illustration No. 14).

At least one twin convenience wall outlet should be installed in each center with additional ones for the refrigerator and dishwasher. Not more than two of these twin outlets should be on a single circuit. A separate circuit for the refrigerator plug is also desirable.

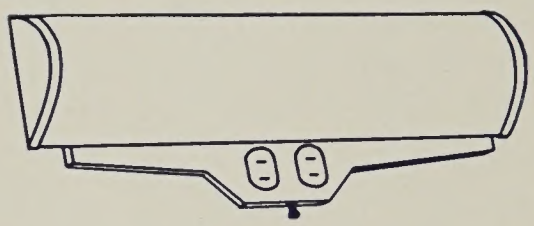

Figure 14
Wall bracket combined with convenience outlet

Chapter II

INDIVIDUAL CENTERS AND STANDARD KITCHEN PLANS

The preceding chapter has established the fundamentals of kitchen planning applicable to any one of the seven types of kitchens discussed in this chapter. In using these fundamentals three steps should be carefully studied.

FIRST: Definitely establish which type of kitchen is to be used.

This is a most important decision. Start with the No. 1 type, or the "U" shape kitchen because this is the most ideal type, and study carefully the application of each type to the specific case before making a decision.

This is particularly essential in homes already built where doors and windows are, naturally, governing factors. We do not recommend structural changes in such homes merely to conform to specific types unless it is absolutely necessary. In the new home, however, a kitchen should be planned from the inside out in every detail.

SECOND: Establish the minimum requirements of storage and equipment space.

This definitely influences the type of kitchen selected for *modernization* jobs. As far as possible adhere to the minimum storage requirements for each *center*, or the over-all storage space for a residence of a given size. This factor applies to minimum requirements only.

THIRD: Proper organization of each center—with proper relation between the *centers*—is more important than the establishment of any one *type* of kitchen.

It is the small details of *center* organization that contribute to convenient, comfortable and efficient work. For tests in innumerable homes have proved conclusively that mental hazards are often more fatiguing than actual steps taken.

INDIVIDUAL CENTERS

The first step on *center* organization is to establish definite, minimum sizes of individual *centers* where wall space in many homes is limited. Therefore, it is not always possible to install the proper minimum size *center*. Sometimes a two-bedroom *center* must be installed in a three-bedroom house, in order to avoid costly structural changes. In such cases the other two *centers* should be increased in size, in order to have the *total* amount of storage meet minimum requirements.

In other instances, homemakers insist upon one *center* being larger than normal. But in the big majority of cases, the minimum-size *centers* as shown on the following pages can be installed without structural changes or difficulty.

REFRIGERATOR AND PREPARATION CENTERS

For 2, 3 and 4 Bedroom Residences

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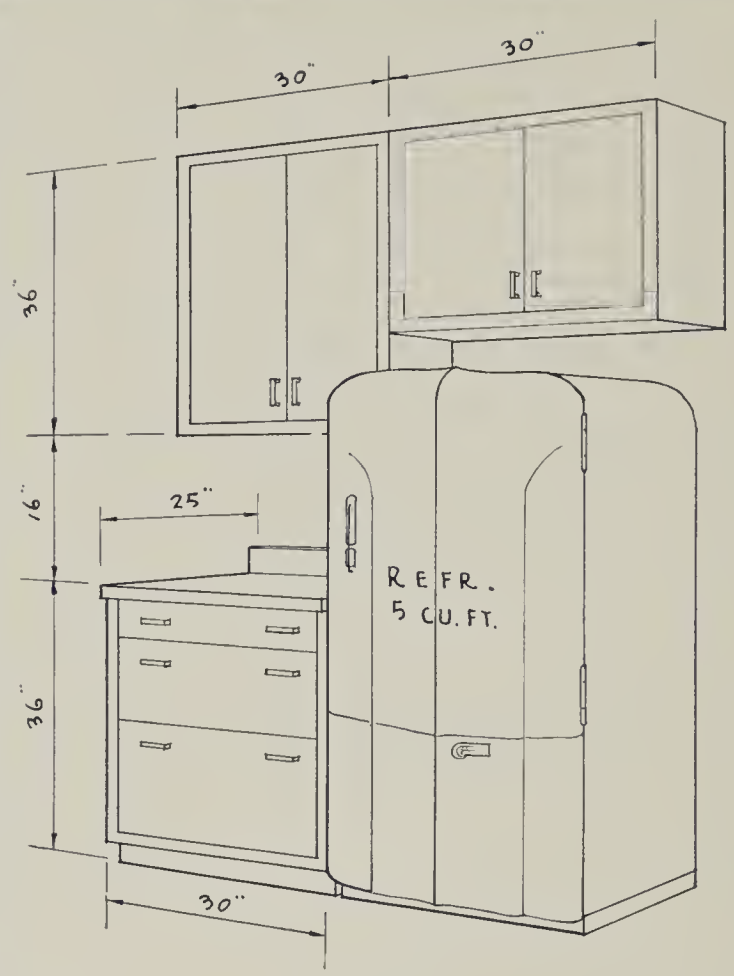
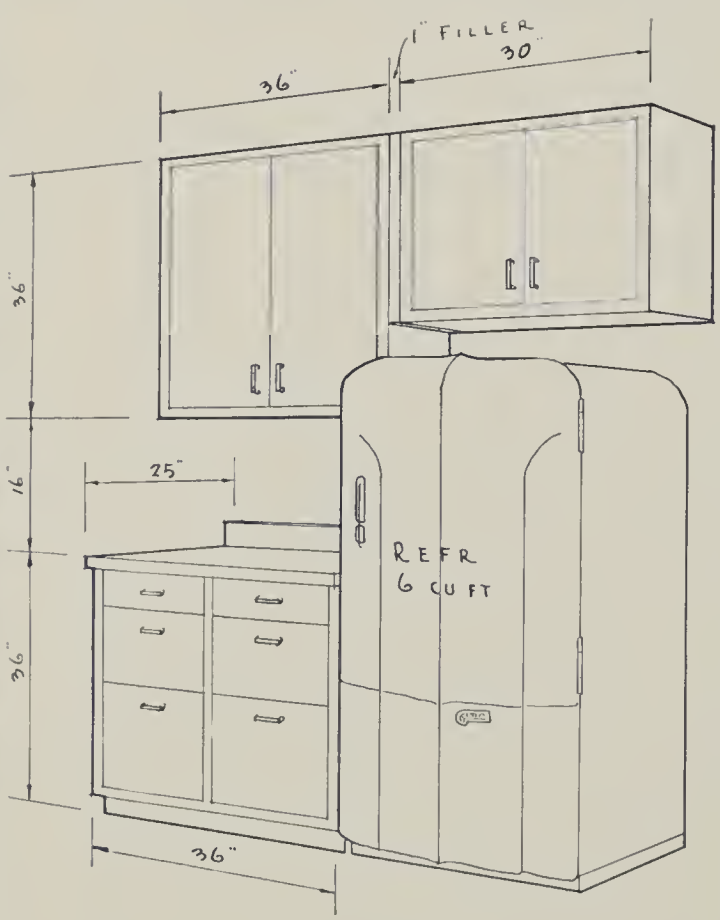
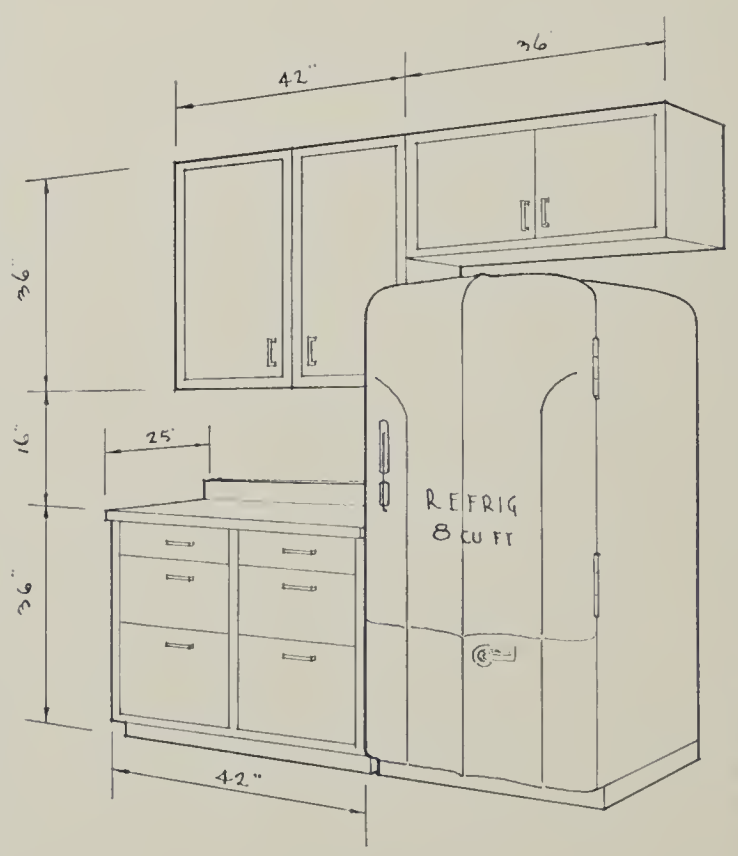
The sketches on this page show minimum sizes established for Refrigerator and Preparation Centers for residences of two, three and four bedrooms. Cabinet and work surfaces are standard size.



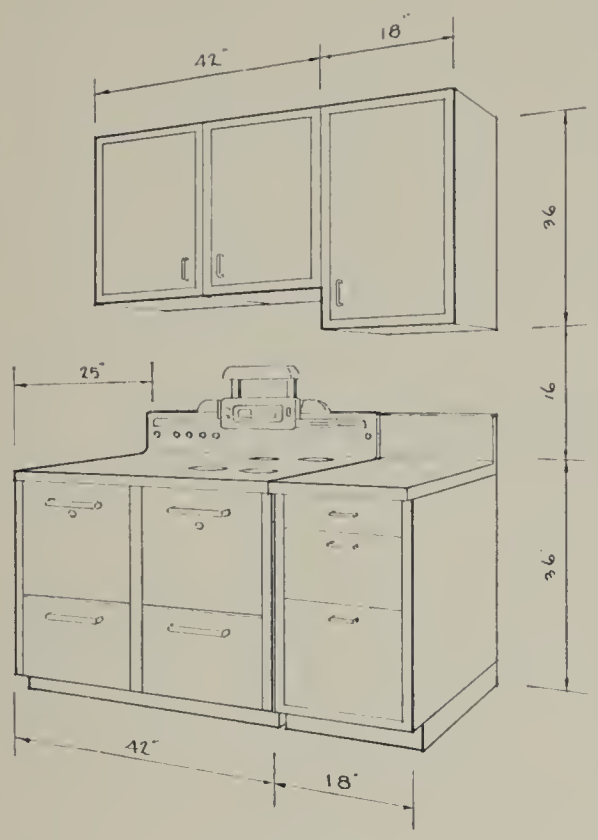
Two Bedroom
Refrigerator and Preparation Center



Three Bedroom
Refrigerator and Preparation Center



Four Bedroom
Refrigerator and Preparation Center

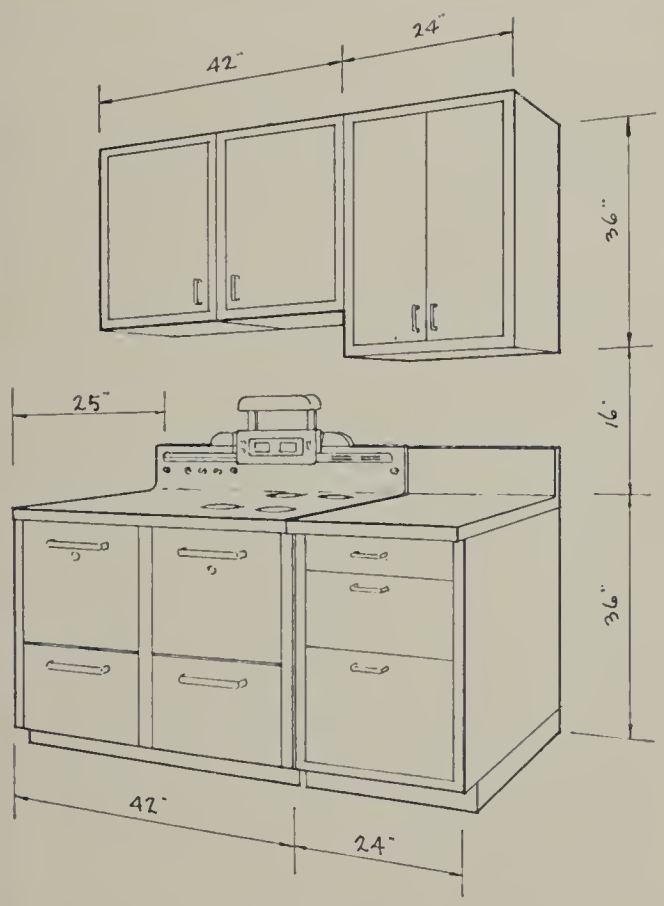


Two Bedroom
Range and Serving Center

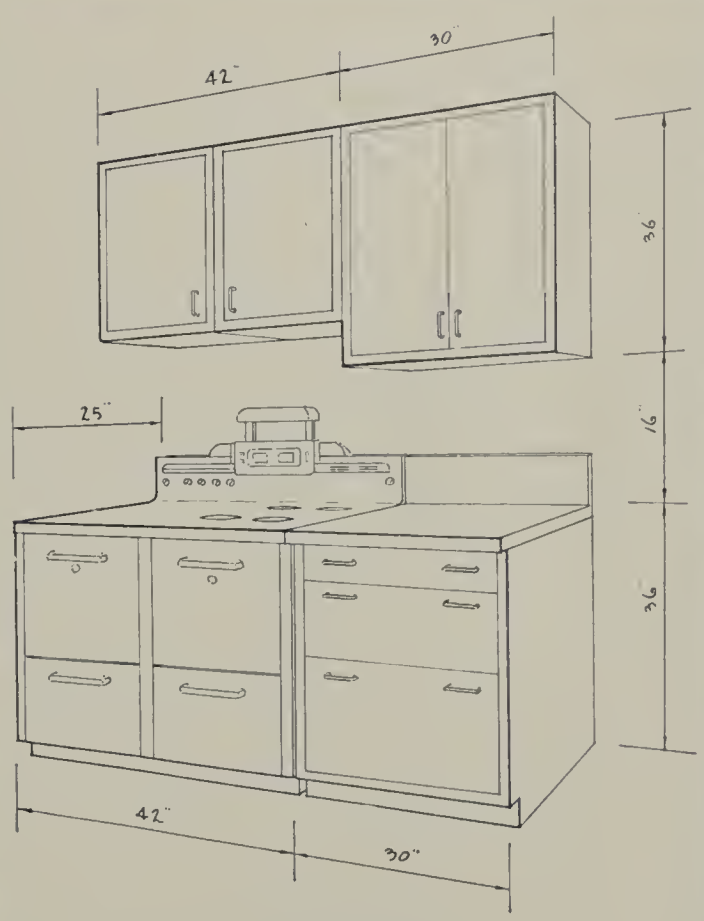
RANGE AND SERVING CENTERS
For 2, 3 and 4 Bedroom Residences

●

On this page are minimum sizes for two, three and four-bedroom residences. These three package groupings have been developed to give maximum storage space and increased efficiency at the range within the limits of the minimum amount of floor and wall space.



Three Bedroom
Range and Serving Center



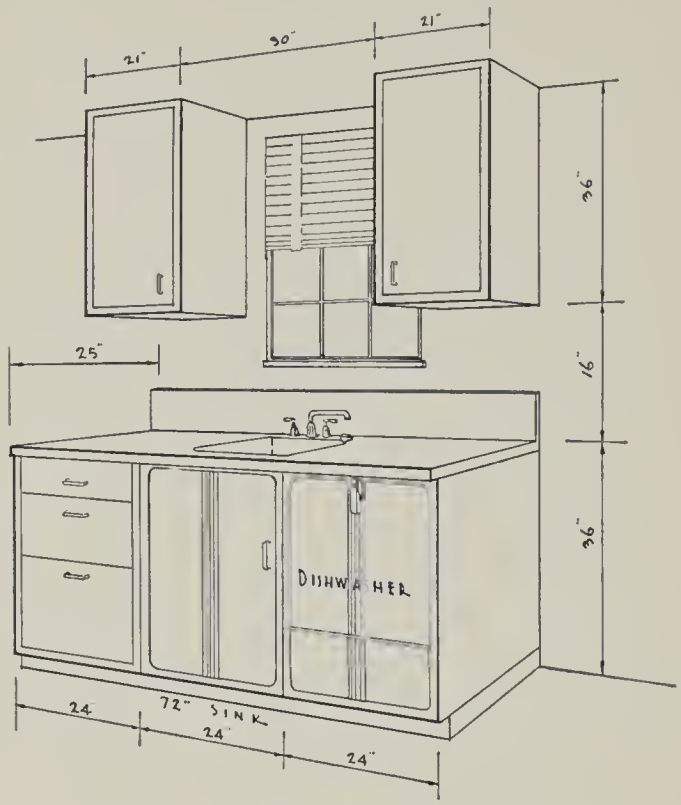
Four Bedroom
Range and Serving Center

SINK AND DISHWASHER CENTERS

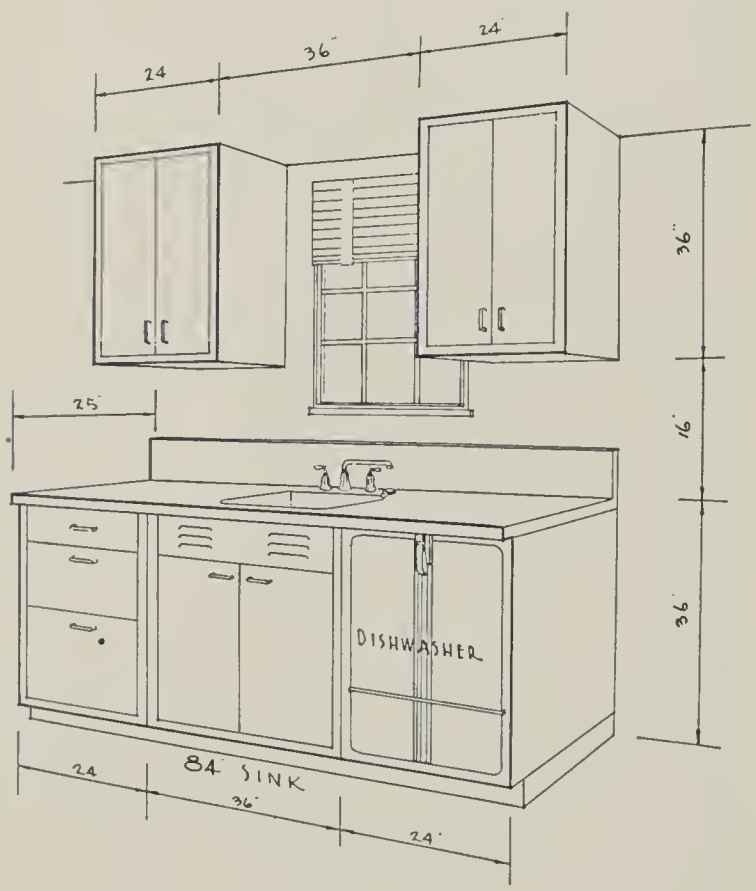
For 2, 3 and 4 Bedroom Residences

•

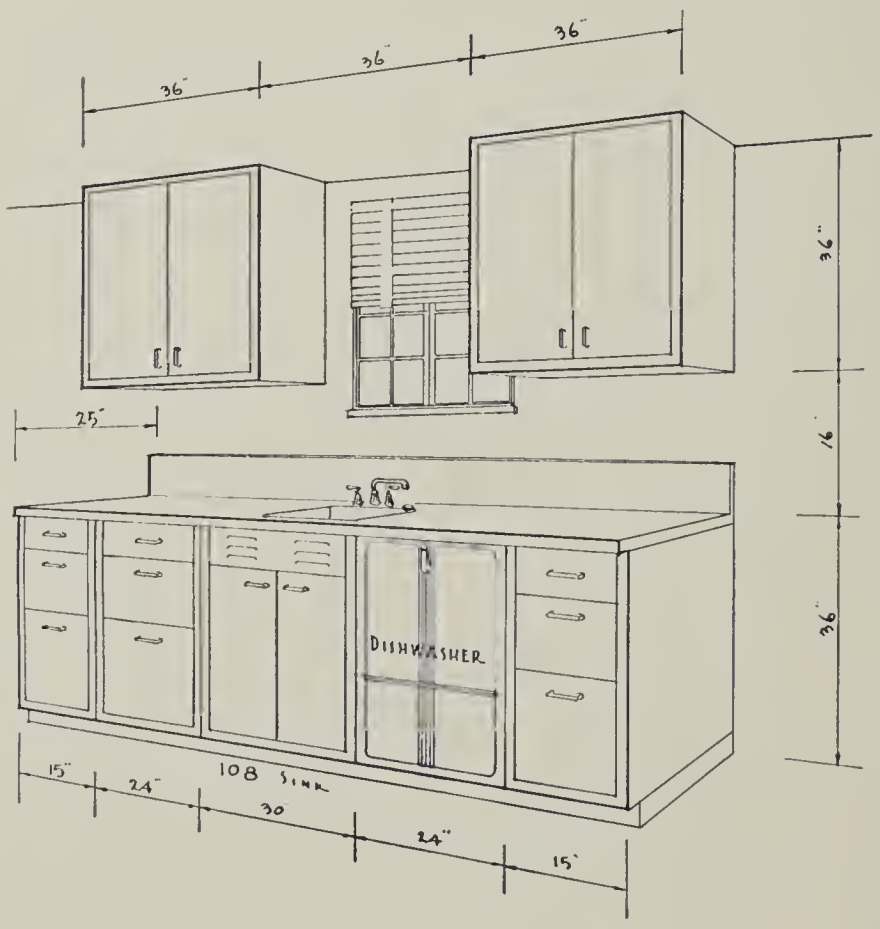
Diagrams show minimum requirements; all cabinets and work surfaces are standard. In the case of remodeling a present kitchen, it may be found that the larger Sink and Dishwasher Center can be installed economically, due to the width of the present room, giving additional storage beyond the minimum. This matter will be discussed in more detail in Chapter III, which deals with the use of these standards in actual construction cases.



Two Bedroom
Sink and Dishwasher Center



Three Bedroom
Sink and Dishwasher Center



Four Bedroom
Sink and Dishwasher Center

STANDARD KITCHEN PLANS

After careful study over a long period of time it has been found that certain kitchen *standard* arrangements can be used in a large percentage of present homes, and that these same standards can be of invaluable service to the architect, designer and builder in planning the kitchen area for new residences.

These standard plans have been designed carefully as to arrangement, balance of storage and practical use. You will find them efficient and a joy to their owner when installed. To the architect, designer or builder, they are definite guides that can be incorporated into residence plans in a minimum amount of time, as they solve the problem of just what is required in a kitchen. They are the result of over five years of extensive study of several thousand actual home kitchens. And they are designed to eliminate the guesswork from the planning of this important room.

The locations of window openings and door openings have been established on all of these drawings. The size of the window opening has been left as flexible as possible, the one governing factor being that where flat wall upper cabinets extend to the corner, there must be a minimum of 13″ between the back of the window trim and the corner formed by the two walls. Where upper corner wall cabinets are indicated, this distance must be a minimum of 25″ between the back of the window casing and the wall corner.

The matter of auxiliary dining facilities is important, as data collected during the last three years prove conclusively that the average home requires some place aside from the dining room where breakfast and midnight snacks can be served. These same data indicate also that, in a very high percentage of homes, 60% to 70% of the meals are eaten in the kitchen or in a breakfast nook. You will note that the "U," "L" and Broken "L" Standard Kitchen Plans care for this important item.

These plans are drawn to scale of one quarter inch to the foot, in order to be of *practical* use to you.

One feature should be noted particularly in new residence construction: There should be a distance of 30″ between the back of the casing of the dining room door and the outside corner of the kitchen. It is impossible to install equipment at right angles to a wall with such a door opening, where the distance is less than 25″, as standard counter depths are of that dimension. The additional 5″ insures better working conditions.

KITCHEN TYPES

The sketches on the following pages indicate standards for each of the seven types of kitchens for two, three and four-bedroom residences.

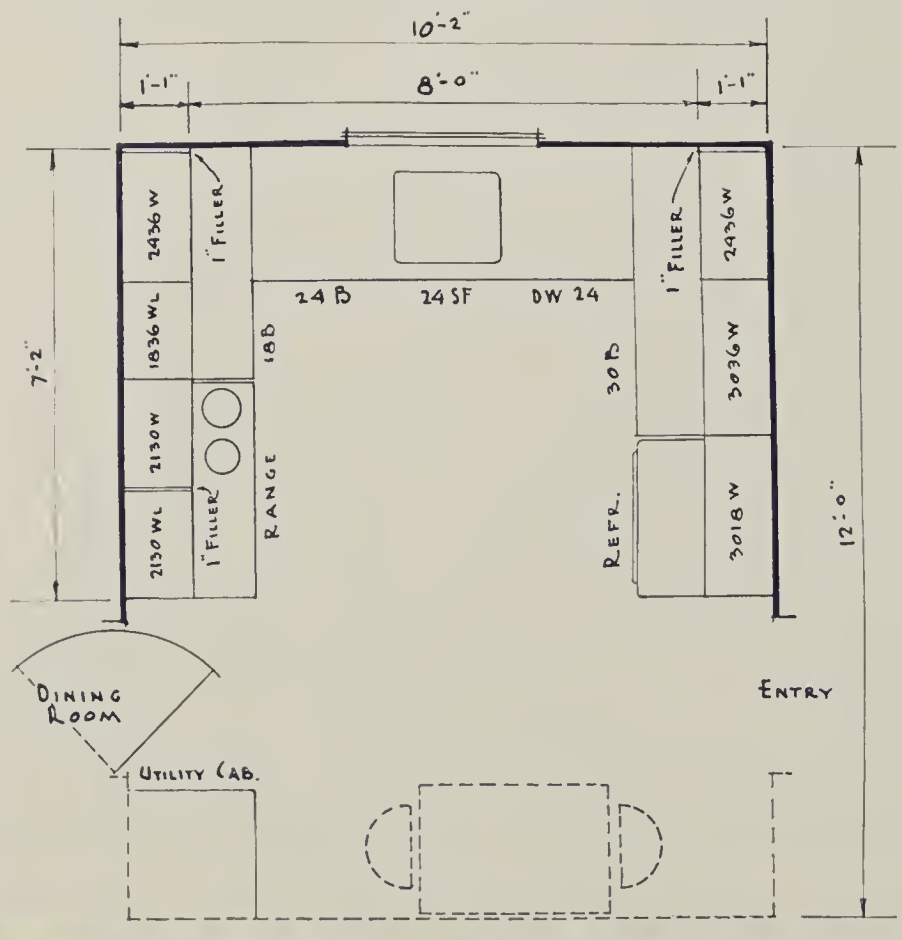
In the "U" Kitchens, "L" shaped, Broken "U" and Broken "L" groupings, the minimum of storage space for two or three *centers* in combination is below the minimum as indicated for the individual *centers*.

This has been done after a lengthy study and test, in order to conform as near as possible to reasonable floor areas for the kitchen, plus the important fact that when a *center* stands alone, it requires more space for one function than it would in combination with another *center*.

STANDARD KITCHEN TYPES

"U" Shaped Kitchens 16–17
Broken "U" Kitchens 18–19
"L" Shaped Kitchens 20–21
Broken "L" Kitchens 22–23
Individual Center Kitchens 24–25
Two Wall Kitchens 26–27
Straight Wall Kitchens 28

"U" SHAPED KITCHENS FOR 2,

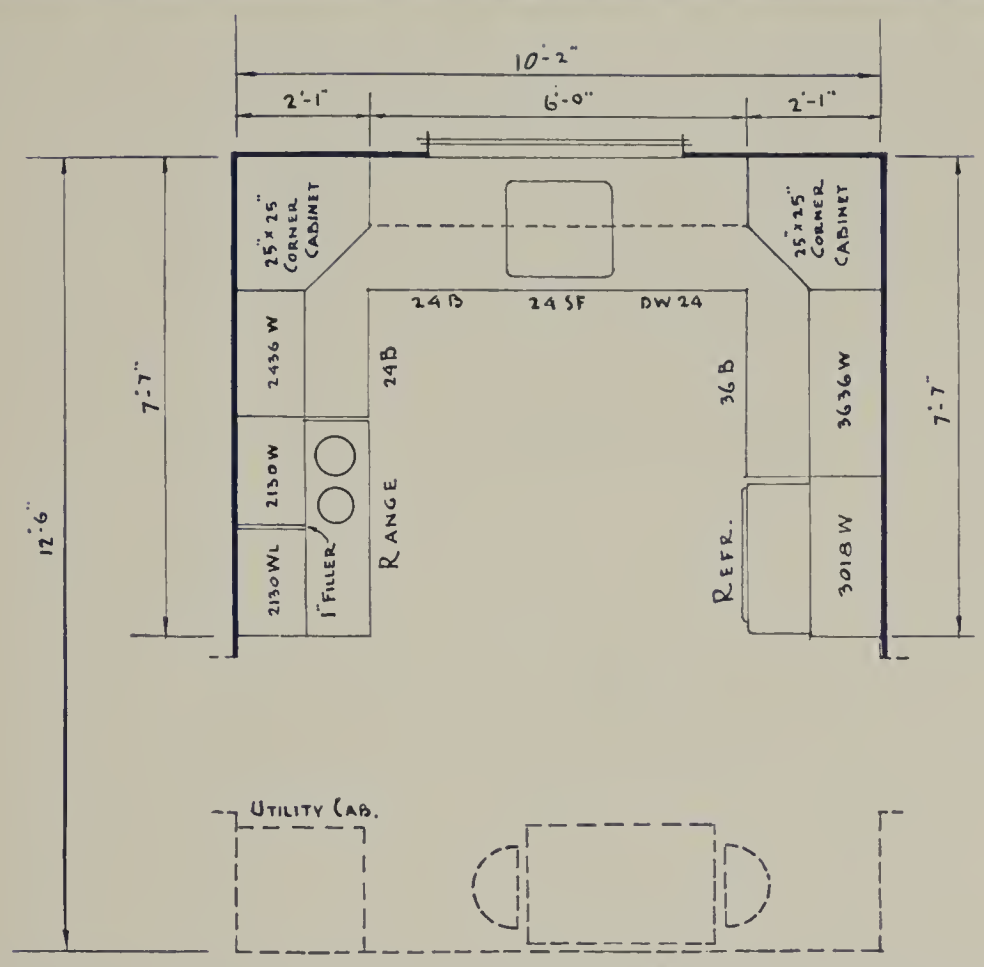


"U" ARRANGEMENT
TWO BEDROOM

31 sq. ft. Wall Storage
6 lin. ft. Base Storage
71 sq. ft. —Minimum } FLOOR
120 sq. ft. —Maximum } AREA
5 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

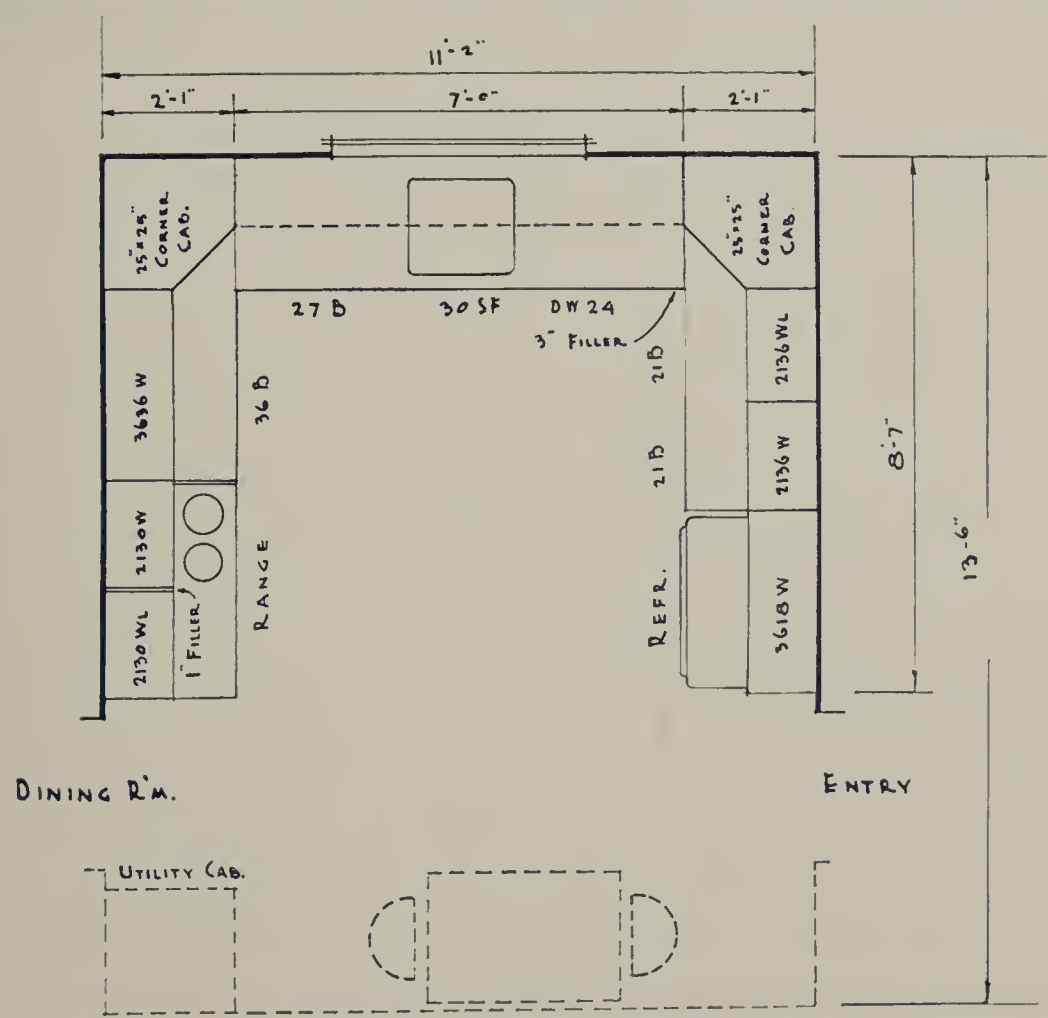
3 AND 4 BEDROOM RESIDENCES



"U" ARRANGEMENT
THREE BEDROOM

38 sq. ft. Wall Storage
7 lin. ft. Base Storage
75 sq. ft. —Minimum } FLOOR
125 sq. ft. —Maximum } AREA
6 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

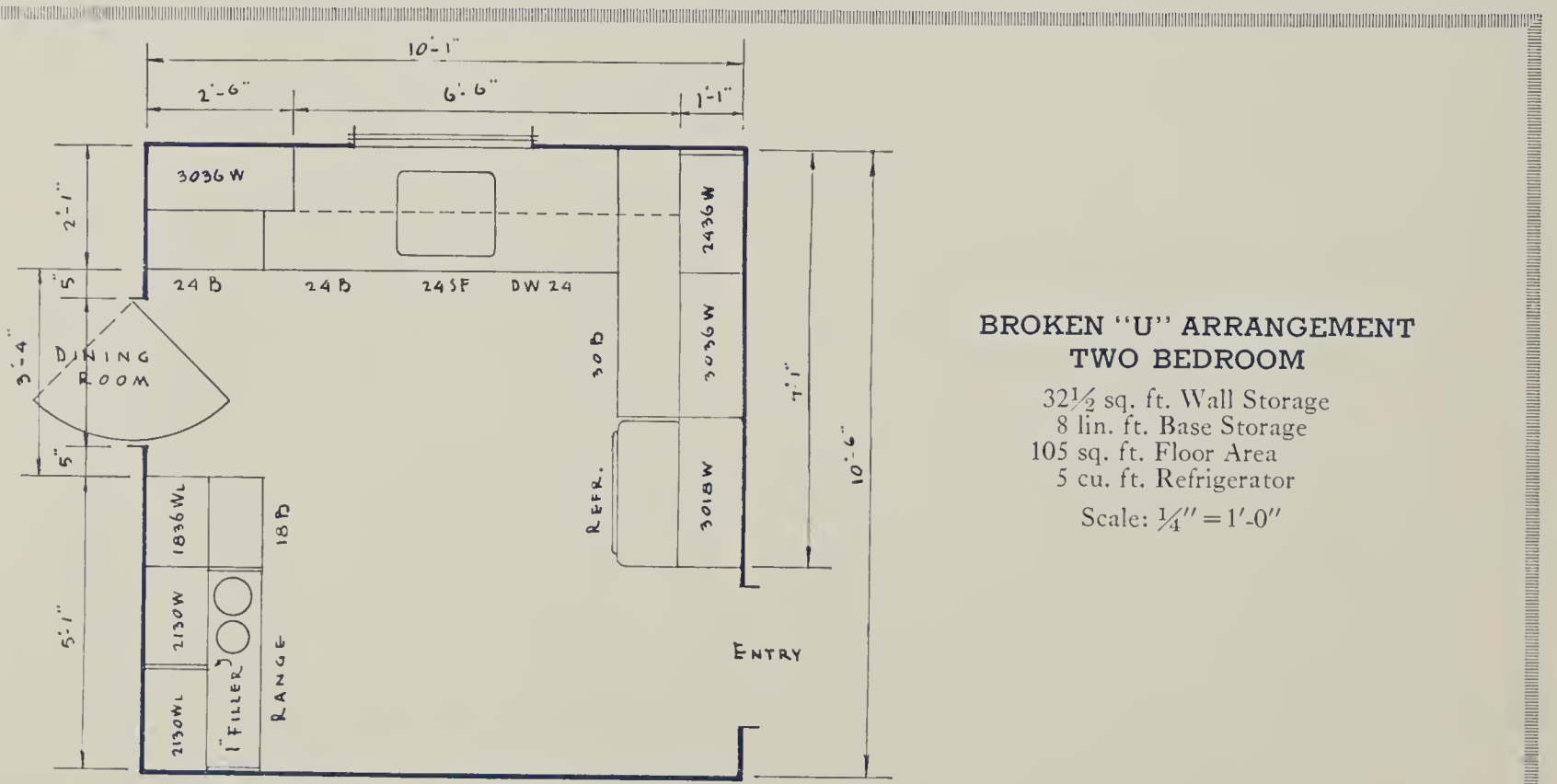


"U" ARRANGEMENT
FOUR BEDROOM

42½ sq. ft. Wall Storage
8¾ lin. ft. Base Storage
95 sq. ft. —Minimum } FLOOR
150 sq. ft. —Maximum } AREA
8 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

BROKEN "U" SHAPED KITCHENS FOR

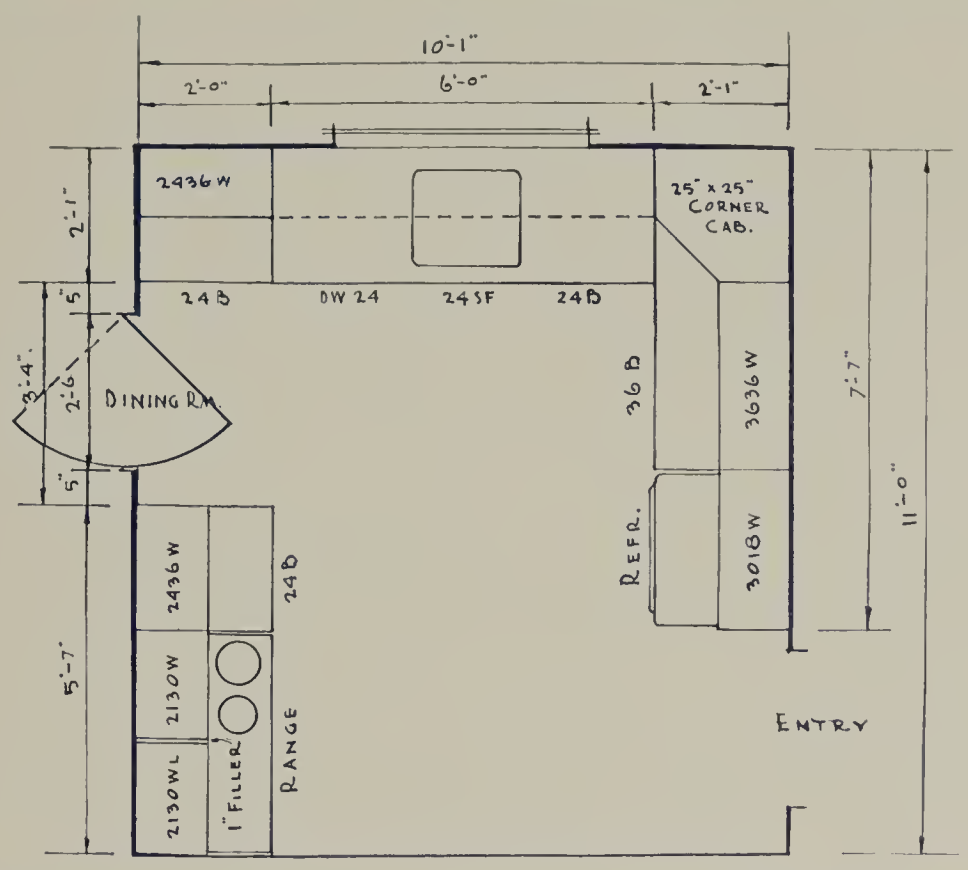


BROKEN "U" ARRANGEMENT
TWO BEDROOM

32½ sq. ft. Wall Storage
8 lin. ft. Base Storage
105 sq. ft. Floor Area
5 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

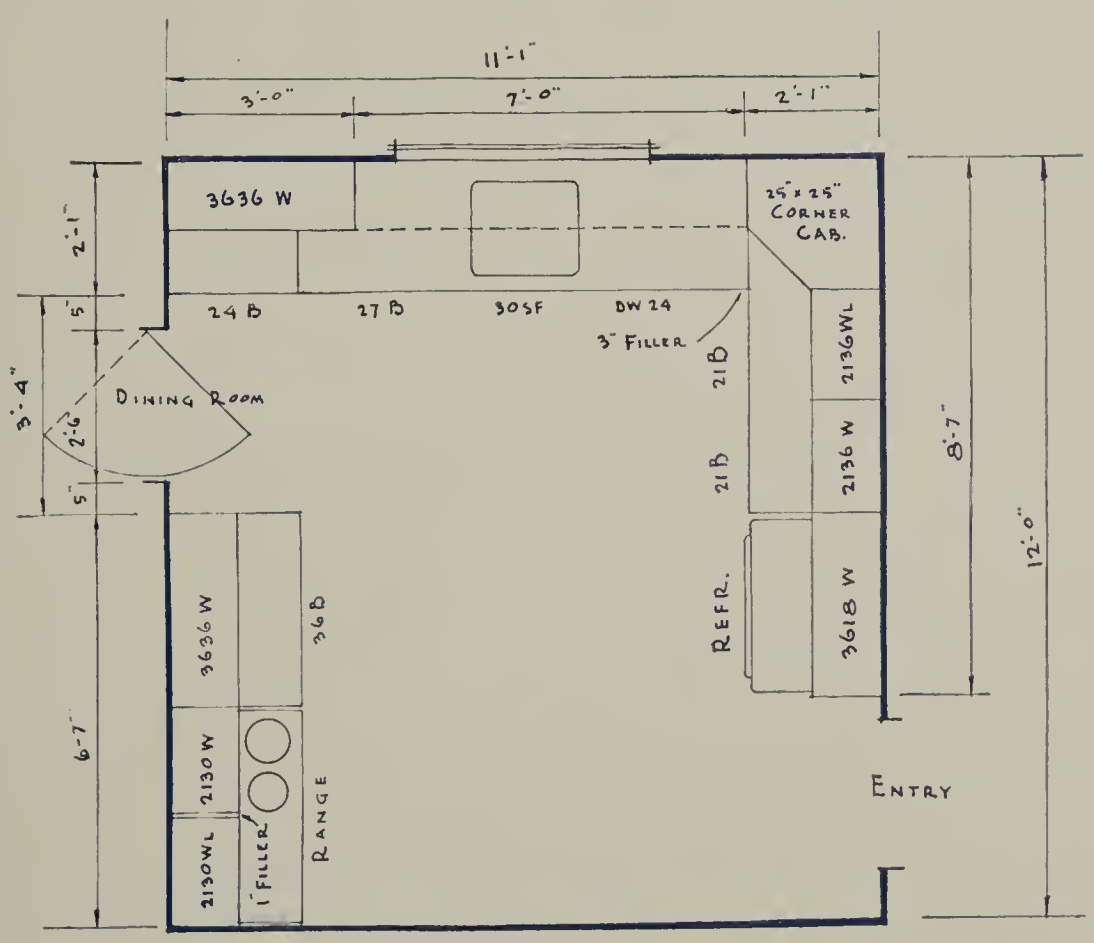
2, 3 AND 4 BEDROOM RESIDENCES



BROKEN "U" ARRANGEMENT
THREE BEDROOM

36 sq. ft. Wall Storage
9 lin. ft. Base Storage
115 sq. ft. Floor Area
6 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

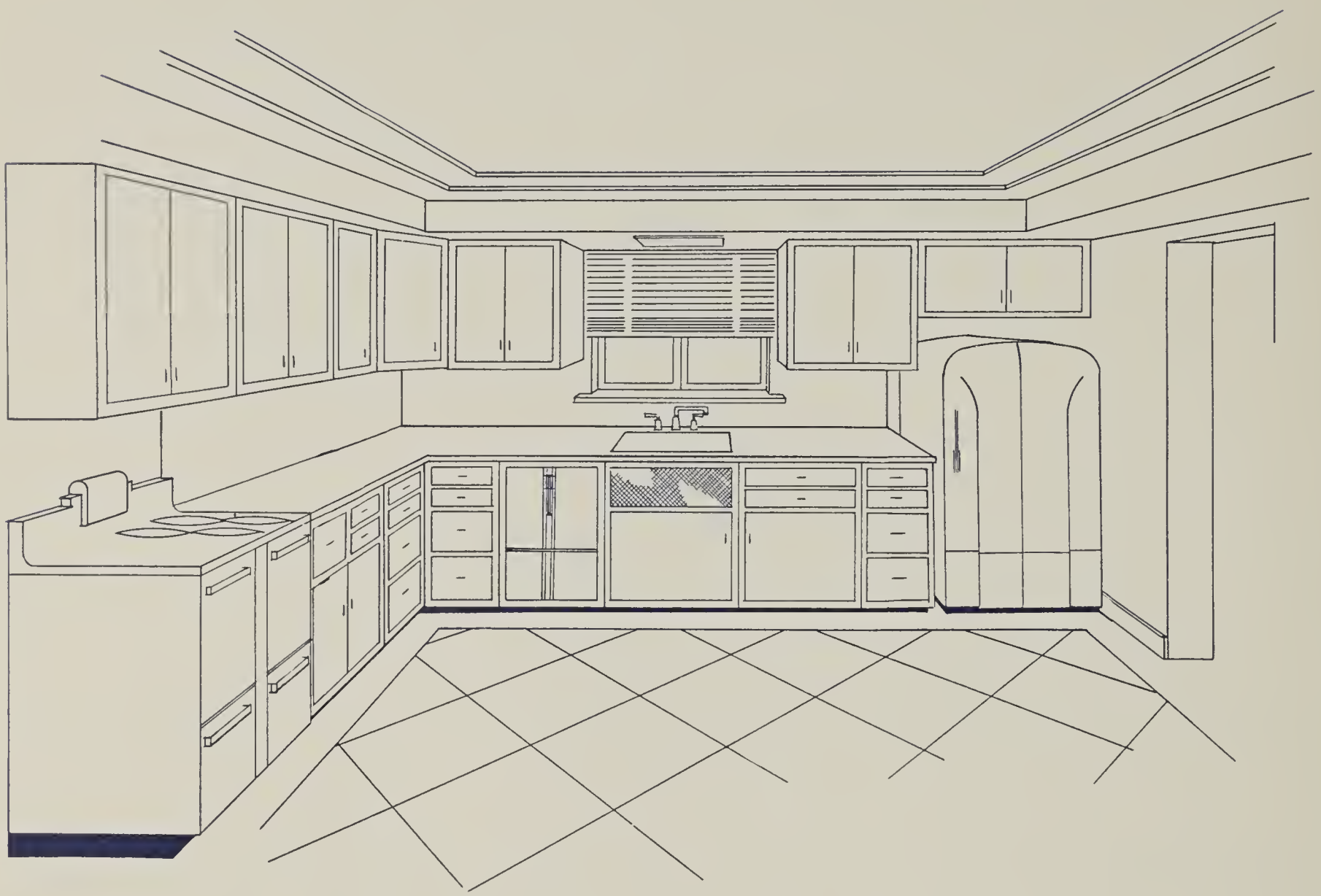


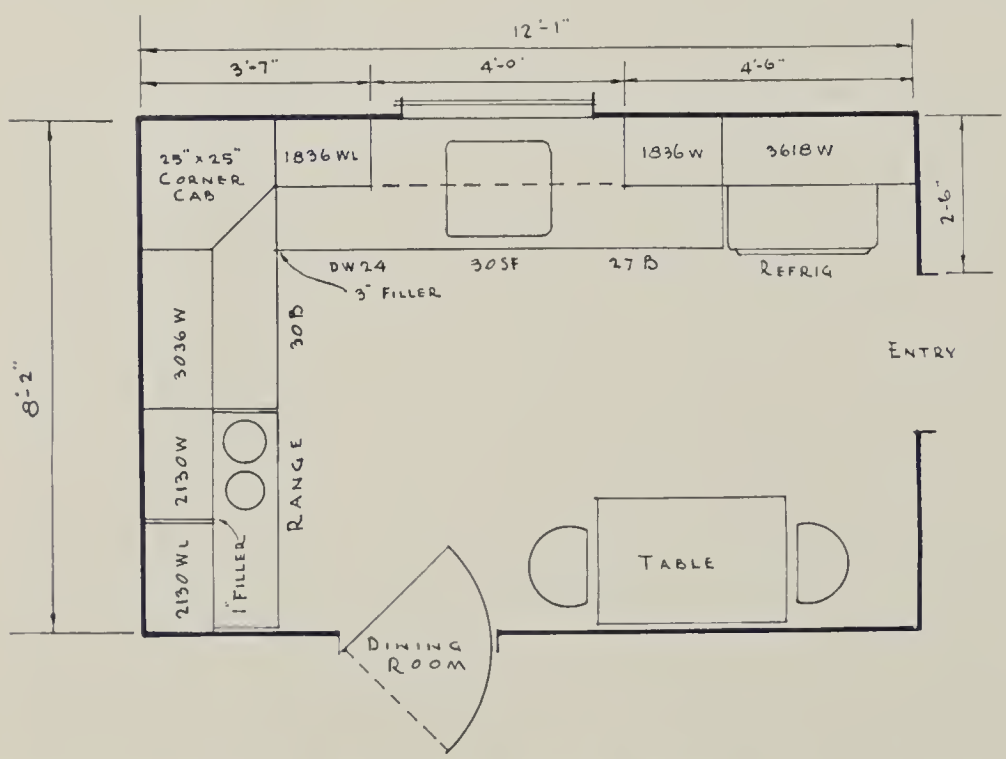
BROKEN "U" ARRANGEMENT
FOUR BEDROOM

43½ sq. ft. Wall Area
10¾ lin. ft. Base Storage
132 sq. ft. Floor Area
8 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

"L" SHAPED KITCHENS FOR 2,



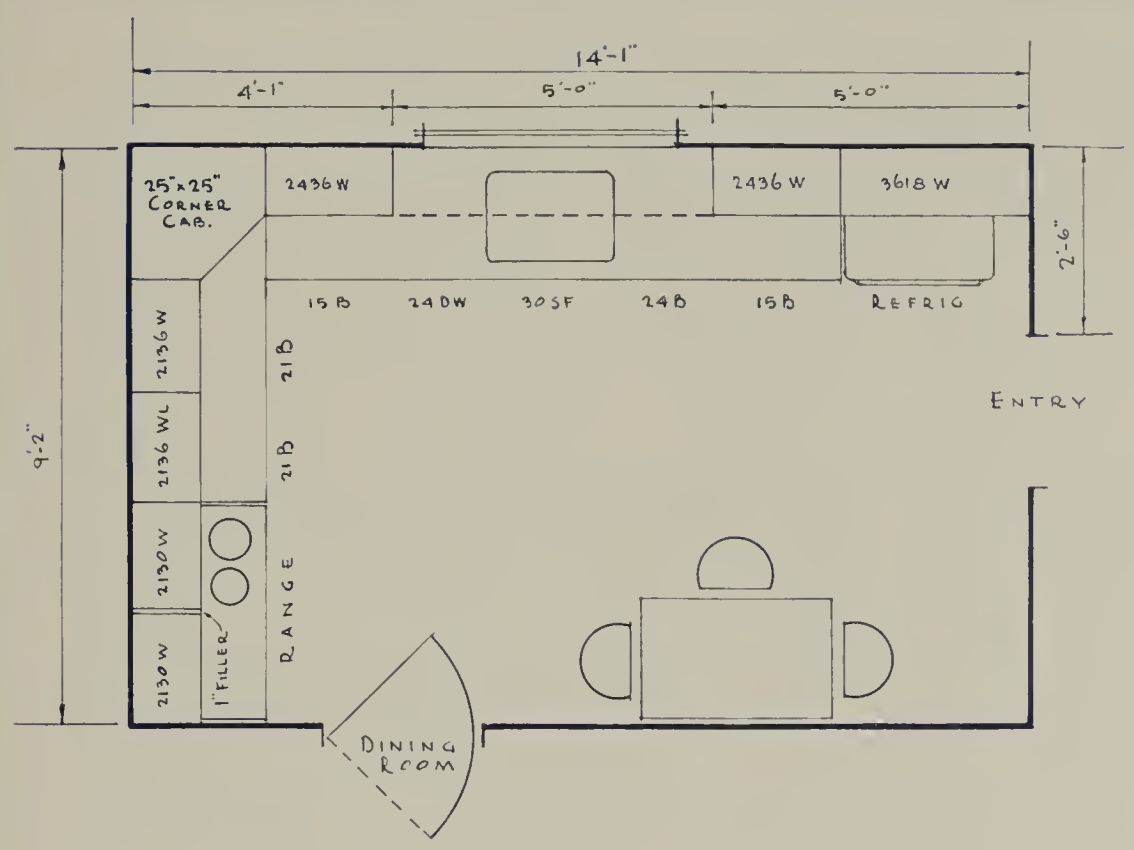


"L" ARRANGEMENT
TWO BEDROOM

31 sq. ft. Wall Storage
4¾ lin. ft. Base Storage
98 sq. ft. Room Area
5 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

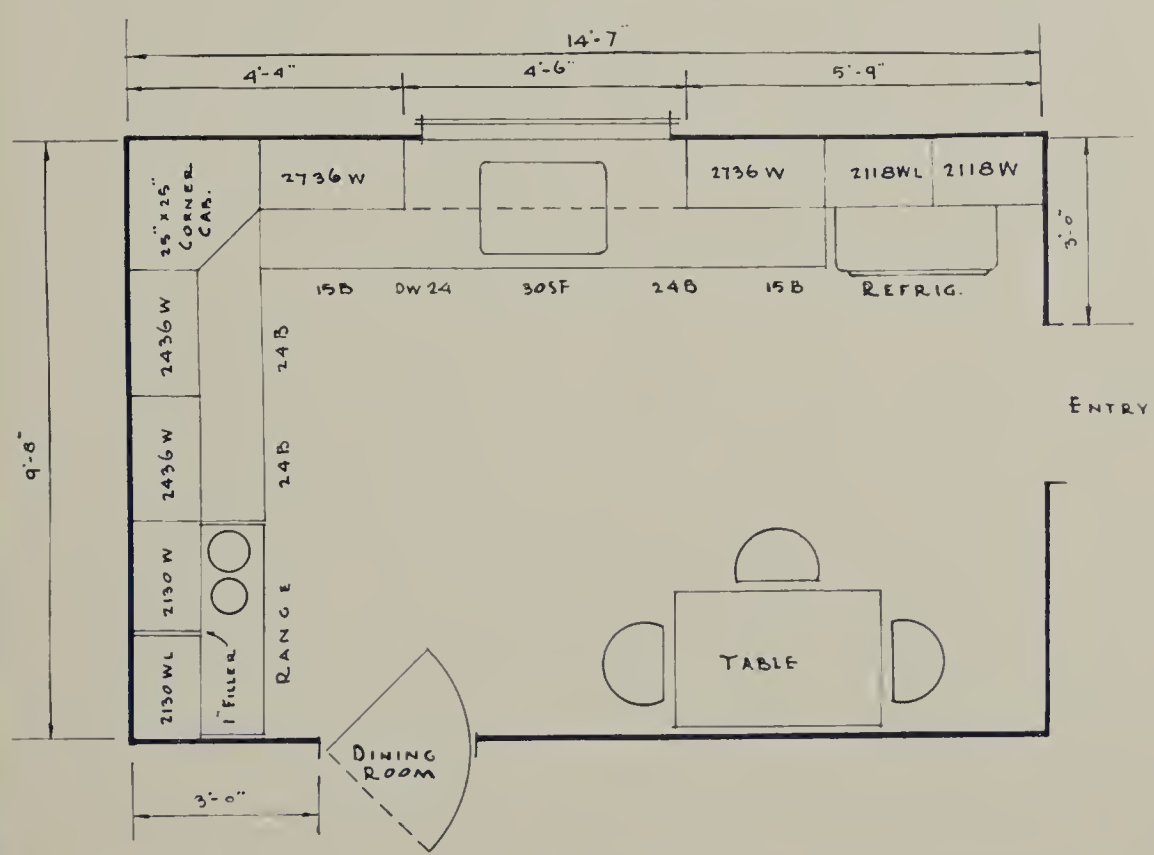
3 AND 4 BEDROOM RESIDENCES



"L" ARRANGEMENT
THREE BEDROOM

37½ sq. ft. Wall Storage
8 lin. ft. Base Storage
128 sq. ft. Room Area
6 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

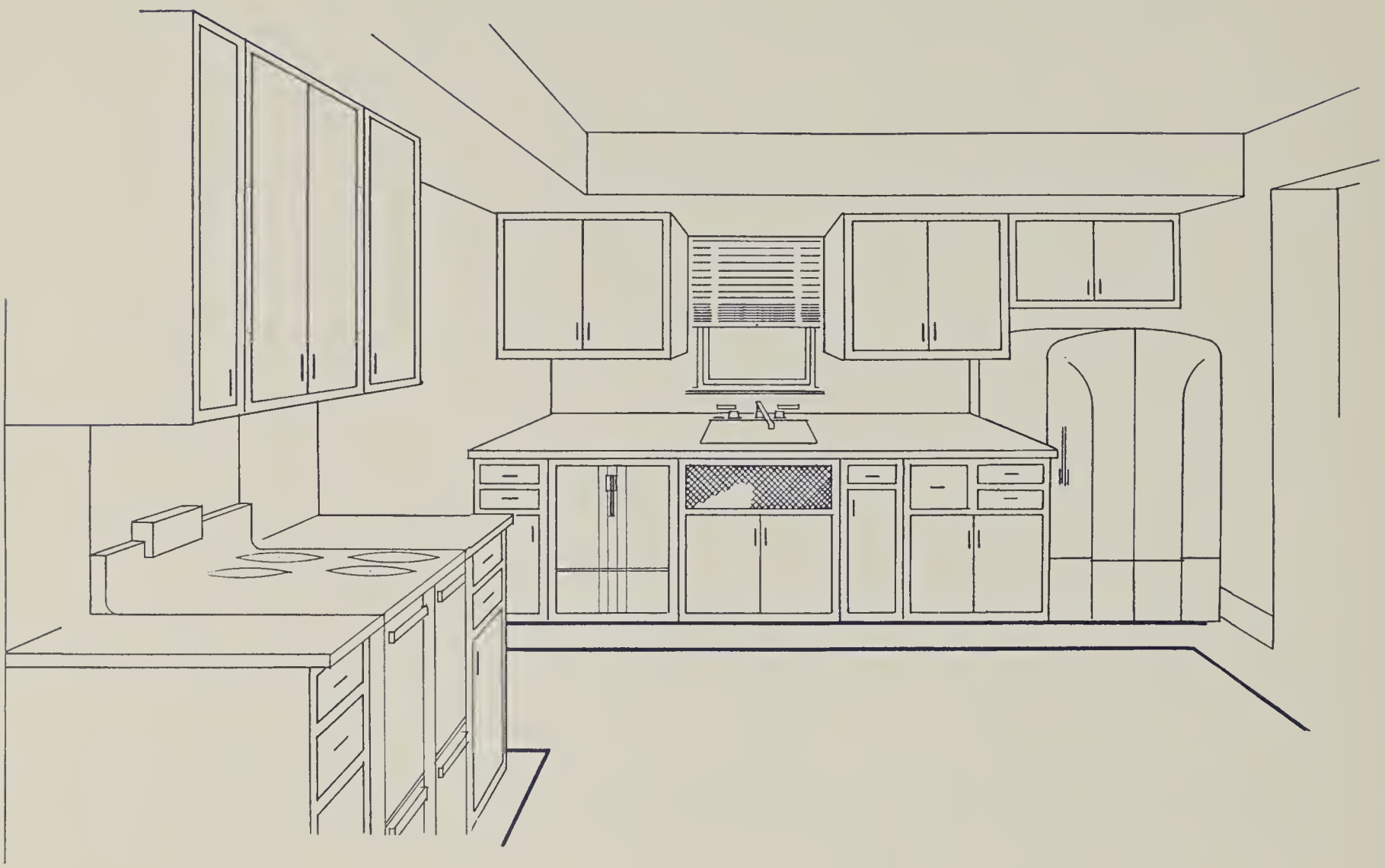


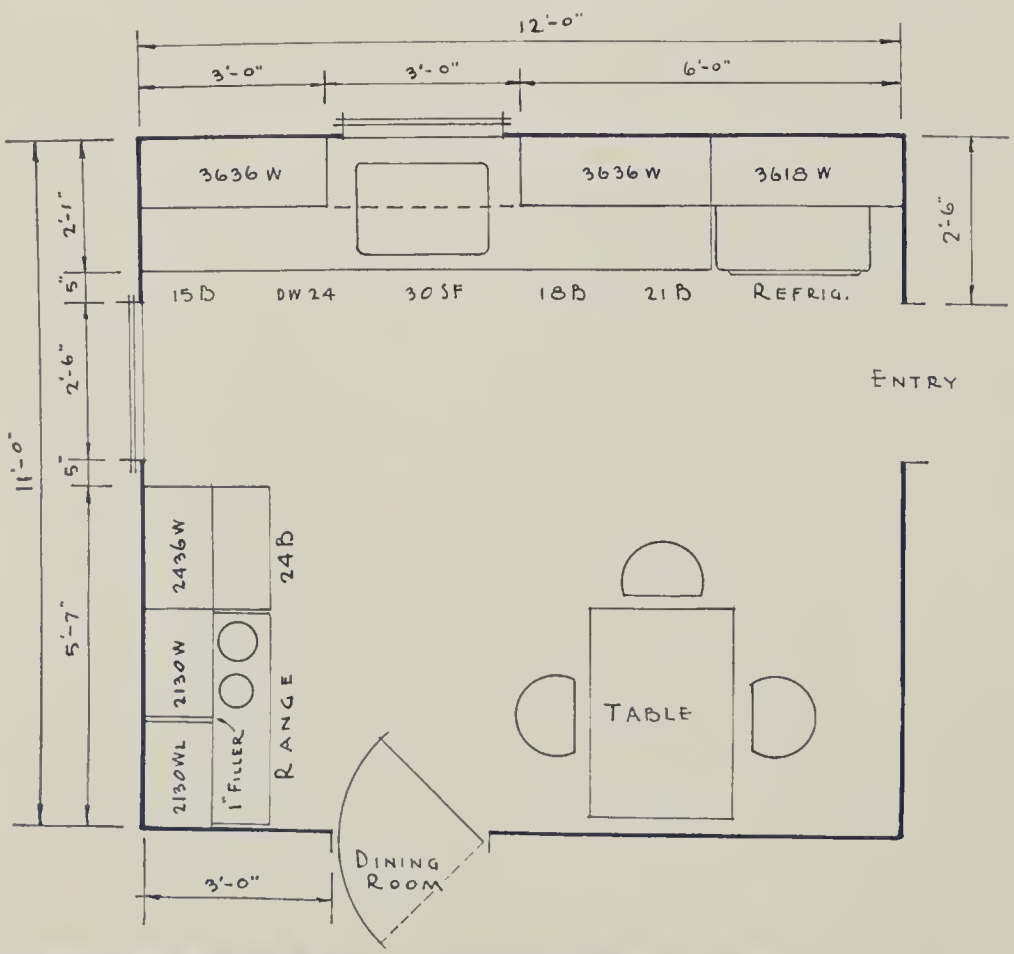
"L" ARRANGEMENT
FOUR BEDROOM

40½ sq. ft. Wall Storage
9½ lin. ft. Base Storage
140 sq. ft. Room Area
8 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

BROKEN "L" KITCHENS FOR 2,



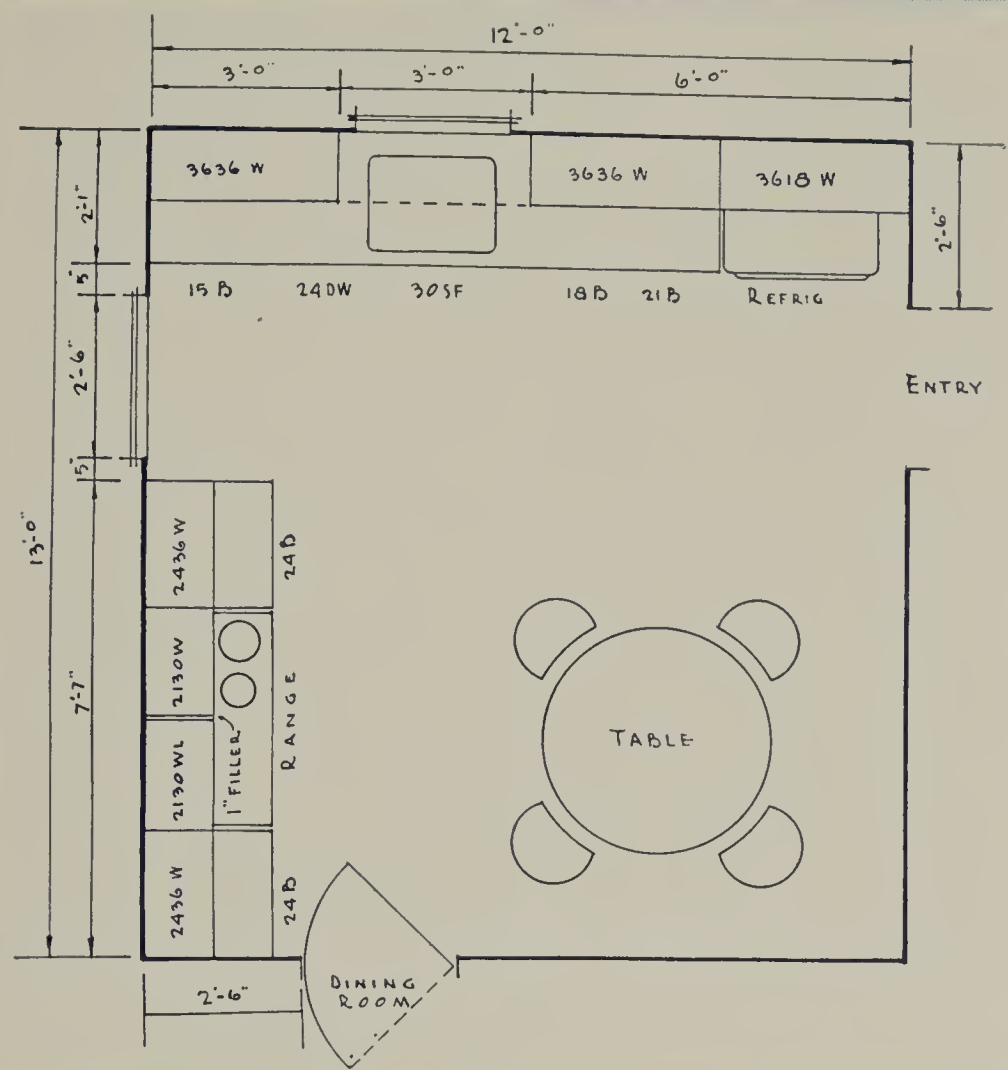


BROKEN "L" ARRANGEMENT
TWO BEDROOM

31 sq. ft. Wall Storage
6½ lin. ft. Base Storage
132 sq. ft. Room Area
5 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

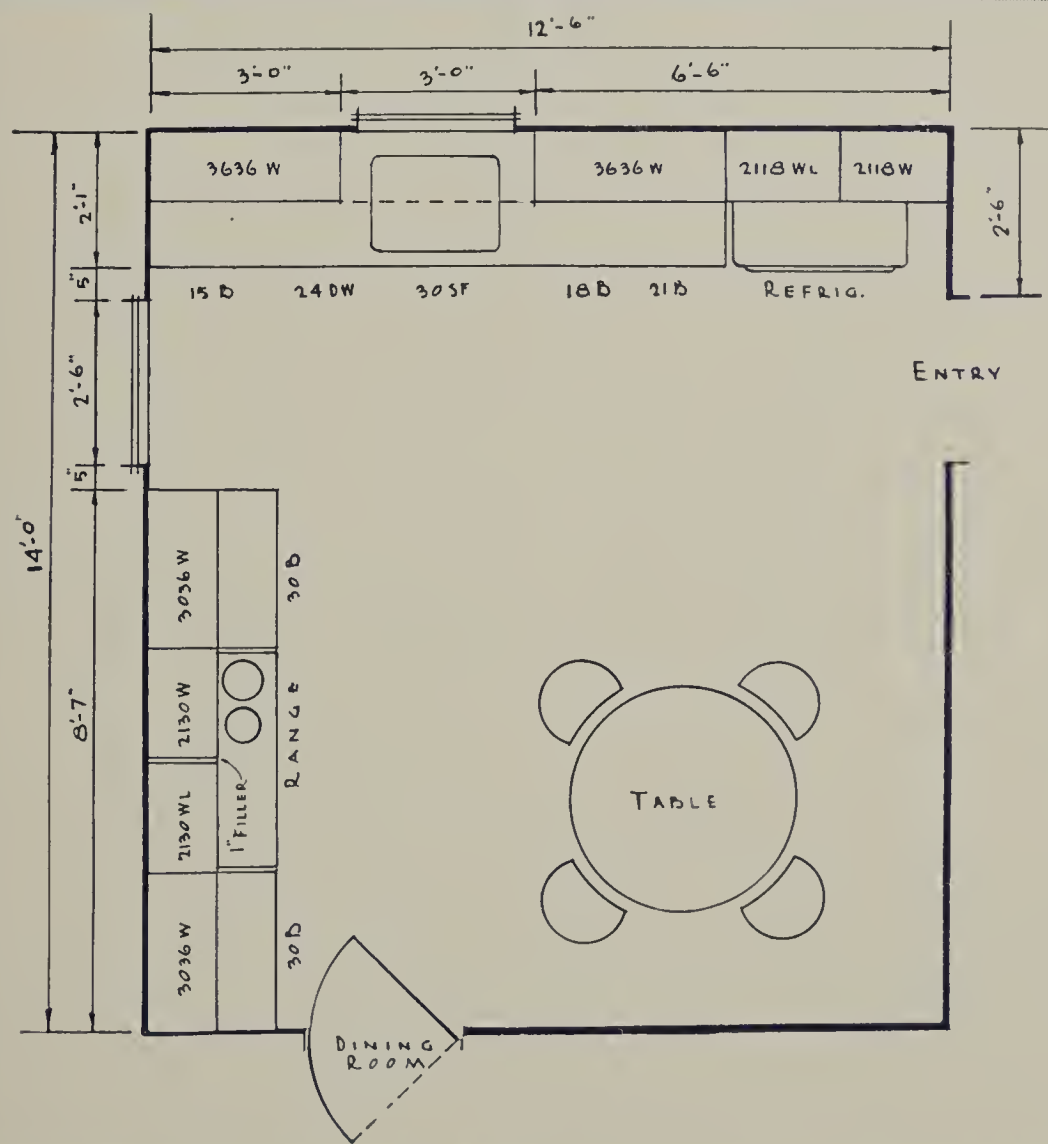
3 AND 4 BEDROOM RESIDENCES



BROKEN "L" ARRANGEMENT
THREE BEDROOM

37 sq. ft. Wall Storage
8½ lin. ft. Base Storage
156 sq. ft. Room Area
6 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

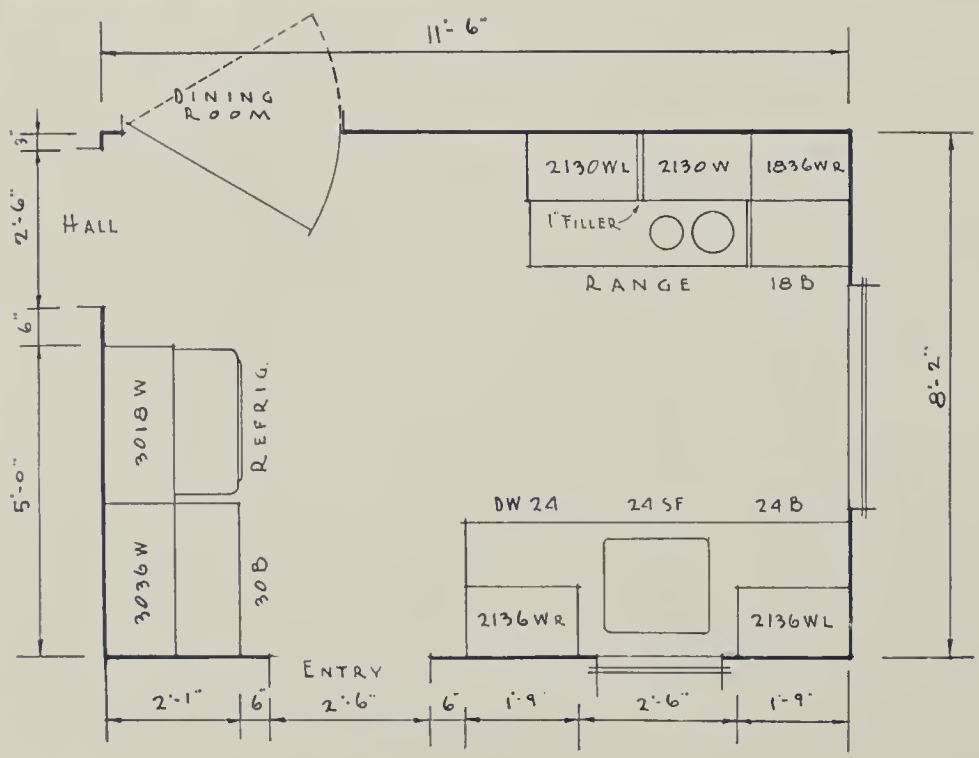


BROKEN "L" ARRANGEMENT
FOUR BEDROOM

30 sq. ft. Wall Storage
9½ lin. ft. Base Storage
175 sq. ft. Floor Area
8 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

INDIVIDUAL CENTER KITCHENS FOR

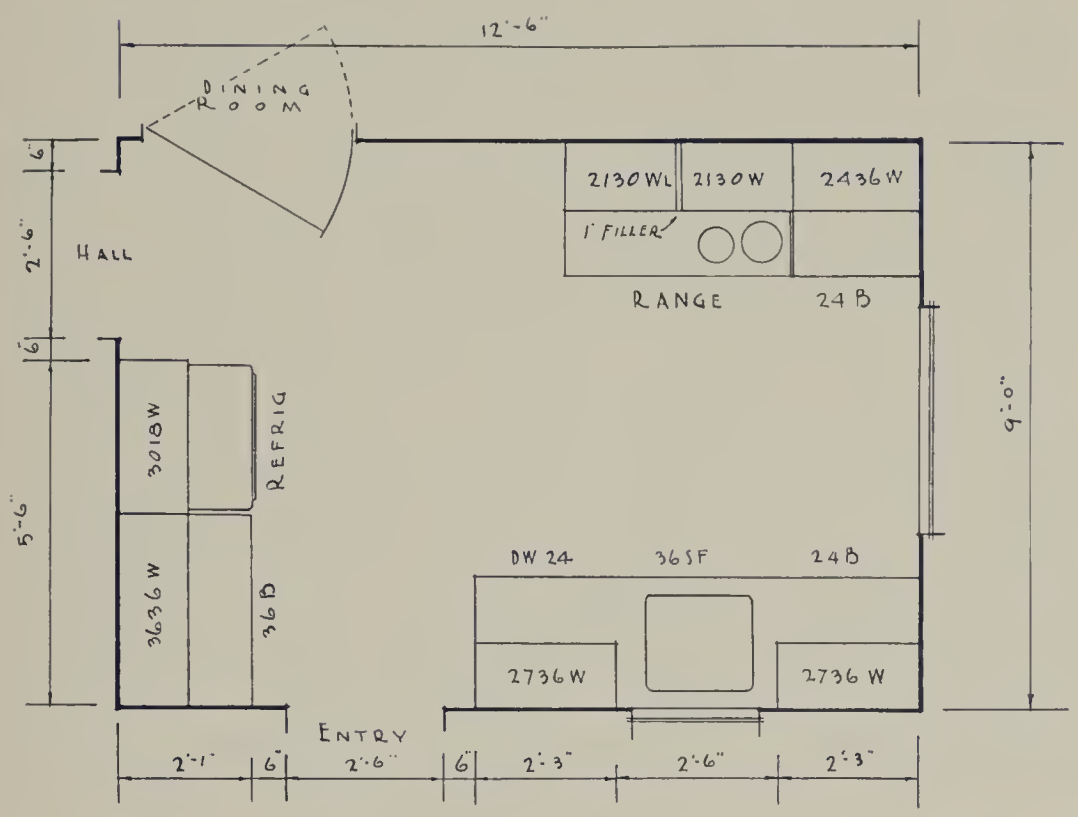


INDIVIDUAL CENTER PLAN
TWO BEDROOM

29½ sq. ft. Wall Storage
6 lin. ft. Base Storage
92 sq. ft. Floor Area
5 cu. ft. Refrigerator

Scale: ¼″ = 1′-0″

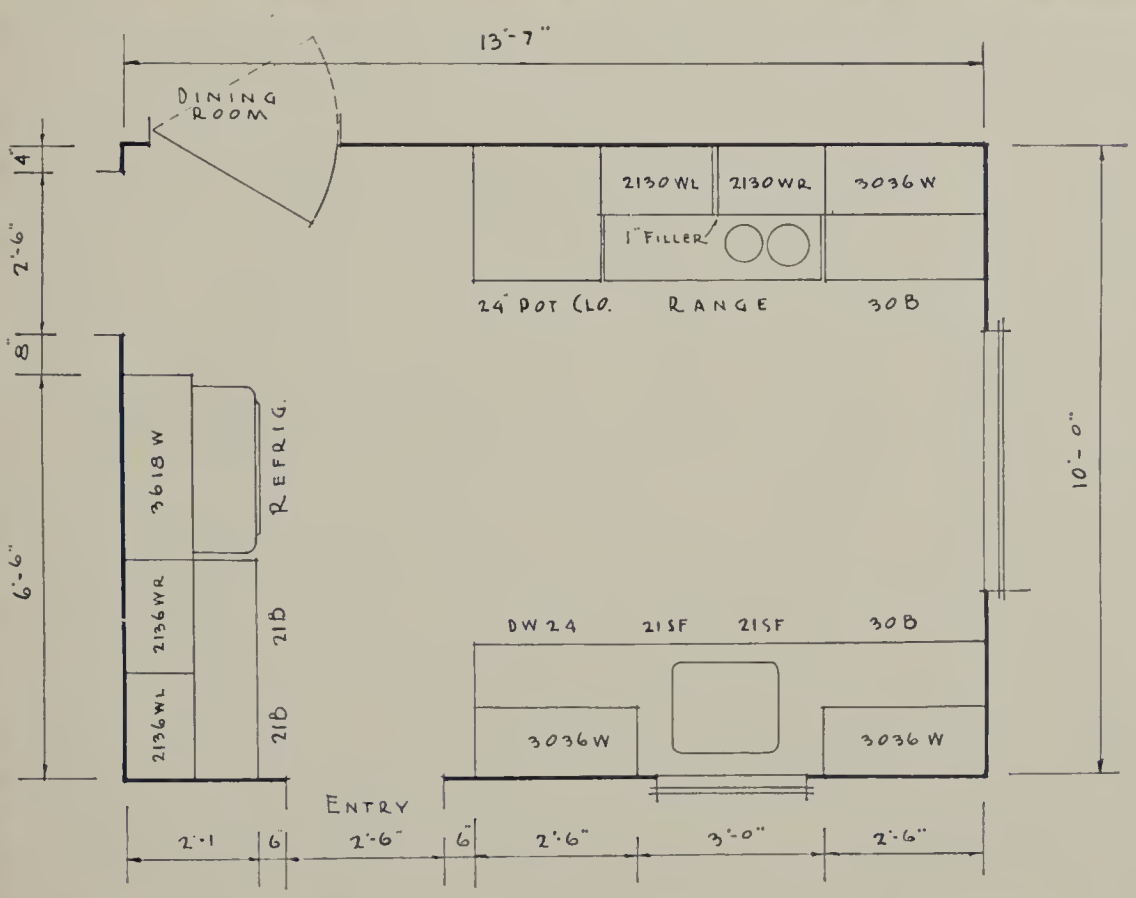
2, 3 AND 4 BEDROOM RESIDENCES



INDIVIDUAL CENTER PLAN
THREE BEDROOM

35½ sq. ft. Wall Storage
7 lin. ft. Base Storage
112 sq. ft. Floor Area
6 cu. ft. Refrigerator

Scale: ¼″ = 1′-0″

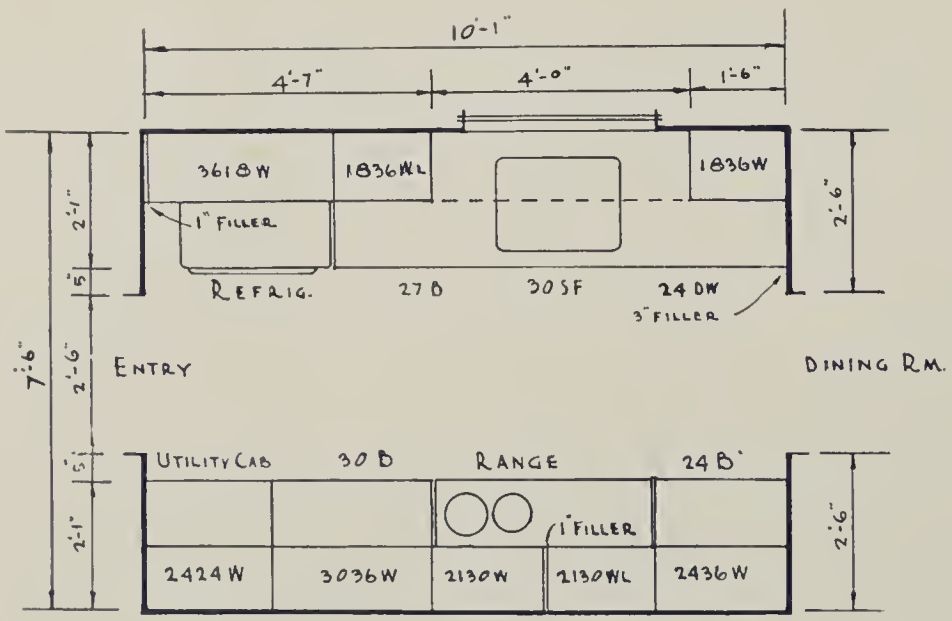


INDIVIDUAL CENTER PLAN
FOUR BEDROOM

42 sq. ft. Wall Storage
8½ lin. ft. Base Storage
135 sq. ft. Floor Area
8 cu. ft. Refrigerator

Scale: ¼″ = 1′-0″

TWO WALL KITCHENS FOR 2, 3

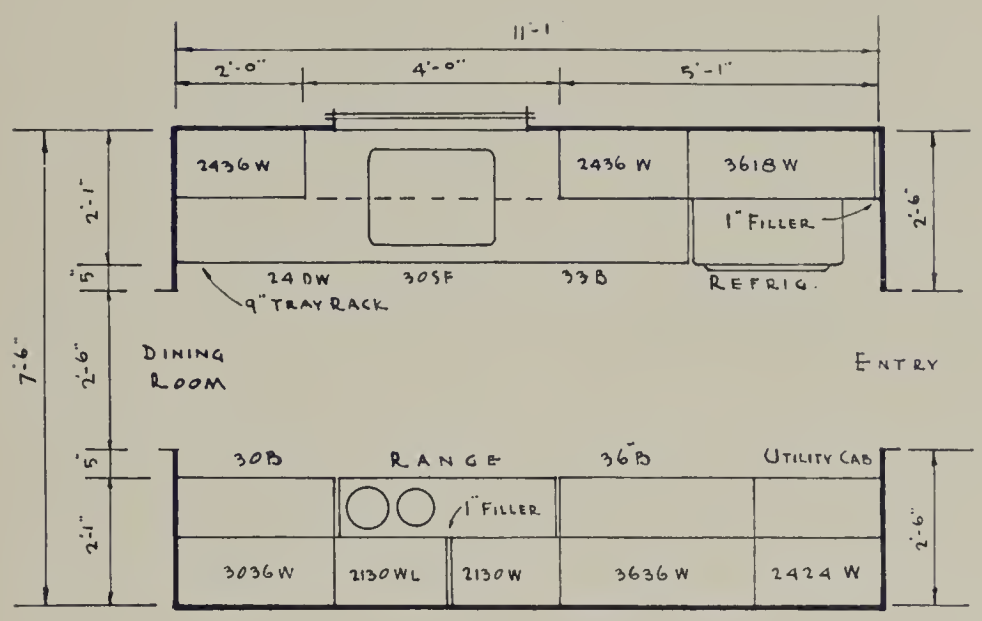


"TWO-WALL" ARRANGEMENT
TWO BEDROOM

29½ sq. ft. Wall Storage
7 lin. ft. Base Storage
75 sq. ft. Room Area
5 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

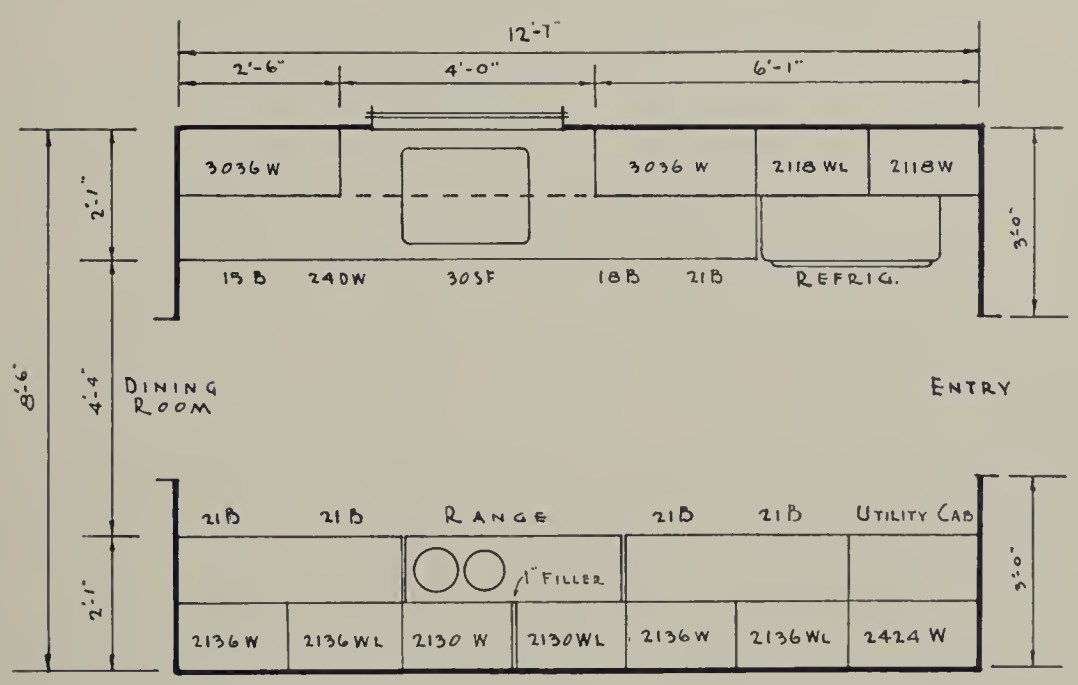
AND 4 BEDROOM RESIDENCES



"TWO-WALL" ARRANGEMENT
THREE BEDROOM

35½ sq. ft. Wall Storage
8 lin. ft. Base Storage
82.5 sq. ft. Room Area
6 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

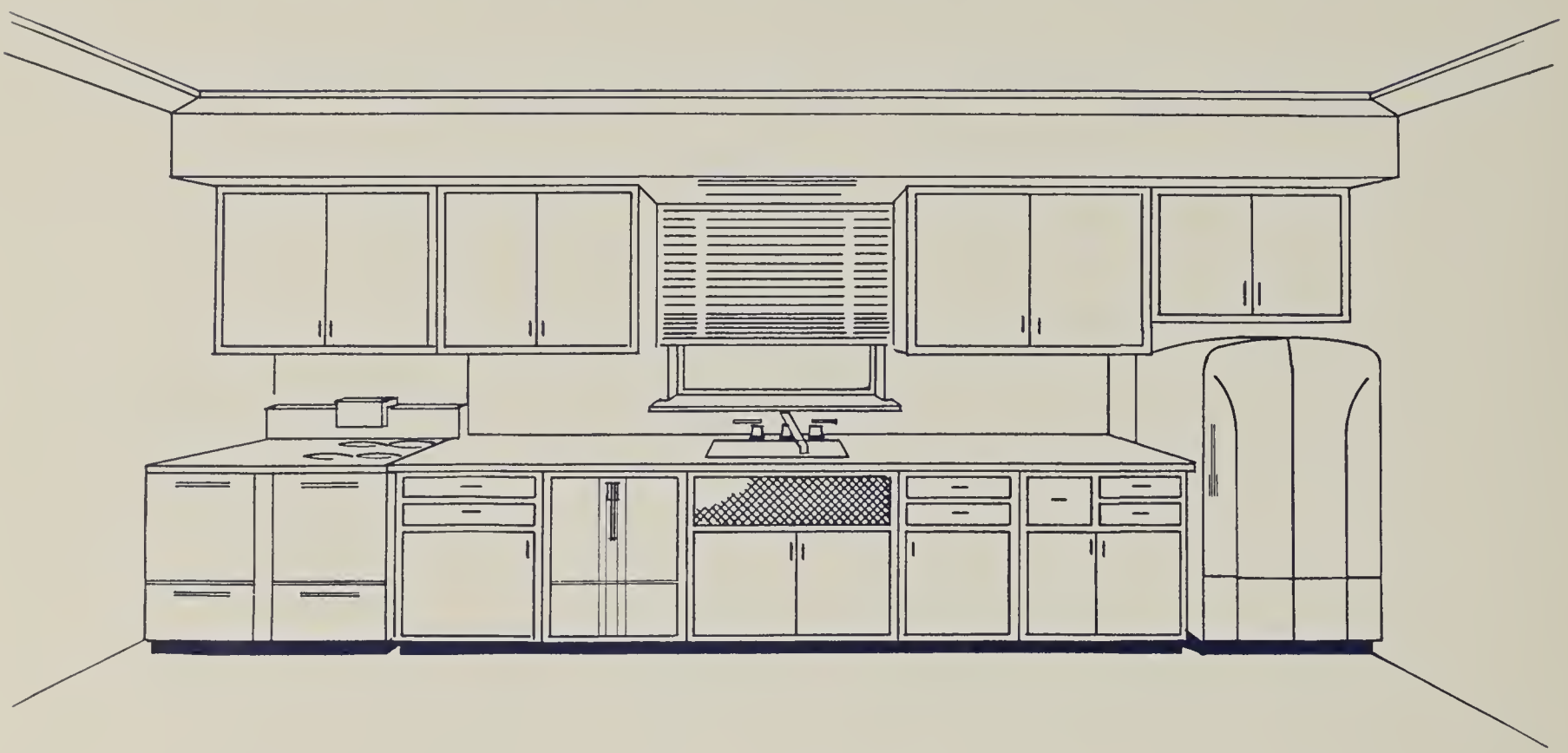


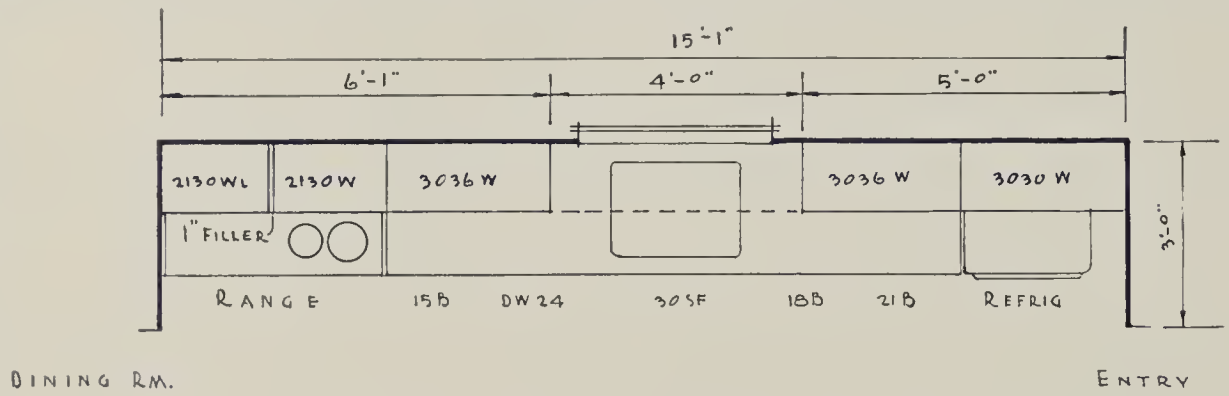
"TWO-WALL" ARRANGEMENT
FOUR BEDROOM

43 sq. ft. Wall Storage
11½ lin. ft. Base Storage
128 sq. ft. Room Area
8 cu. ft. Refrigerator

Scale: ¼" = 1'-0"

STRAIGHT WALL KITCHENS FOR 1 AND 2 BEDROOM RESIDENCES

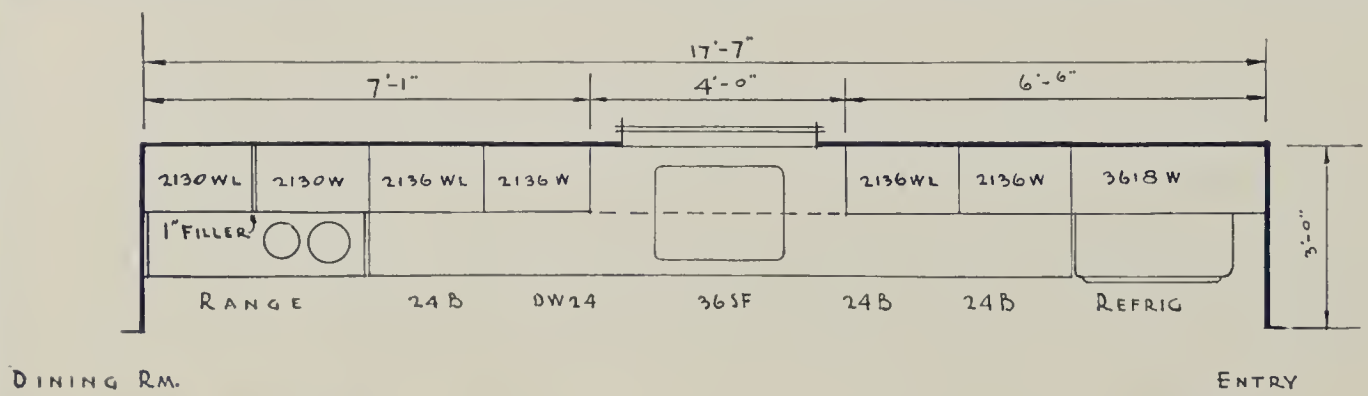




"STRAIGHT WALL" ARRANGEMENT ONE BEDROOM

22 sq. ft. Wall Storage
4½ lin. ft. Base Storage
4 cu. ft. Refrigerator

Scale: ¼" = 1 -0"



"STRAIGHT WALL" ARRANGEMENT TWO BEDROOM

28 sq. ft. Wall Storage
6 lin. ft. Base Storage
5 cu. ft. Refrigerator

Scale: ¼" = 1 -0"

NEW BUILDING KITCHEN SUGGESTIONS

New residence kitchen design offers many opportunities for structural and monetary economics with increased efficiency and satisfaction to the occupying homemaker.

Careful attention should be given to the location of doors and windows in relation to corners. Major equipment is from 24″ to 28″ in depth. Therefore, a door opening should always be 30″ from the corner. (See figure 44). Likewise, the distance between a window opening and a corner should be a minimum of 15″. Standard flat wall cabinets are 13″ in depth. The minimum of 15″ permits the installation of flat wall cabinets to the corner. Where corner wall cabinets are to be used or considered, this distance should be increased to 27″.

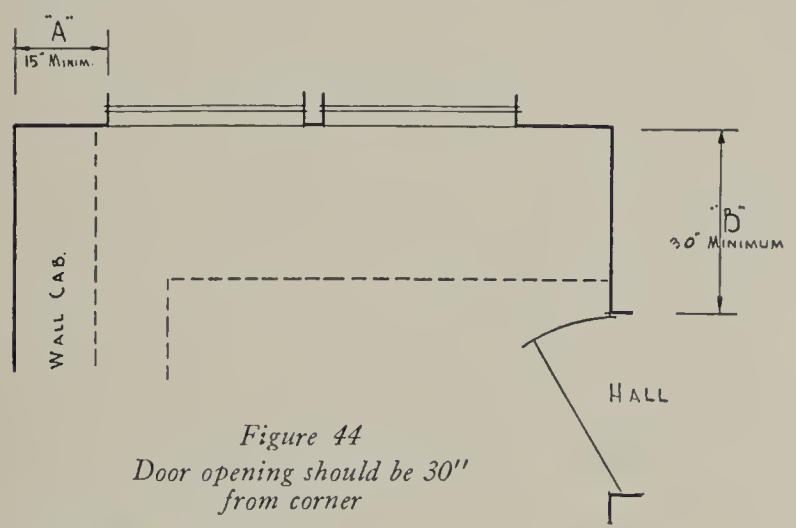


Figure 44
Door opening should be 30″ from corner

Window Heights

Base cabinets with work surfaces are 36″ high. Backsplashers vary from 1½″ up to 8″. Therefore, distance from floor to underside of window sill should be 44″. (See figure 45).

The use of these simple fundamental standards insures the maximum use of floor and wall space for equipment, cabinets and work surfaces of standard dimensions.

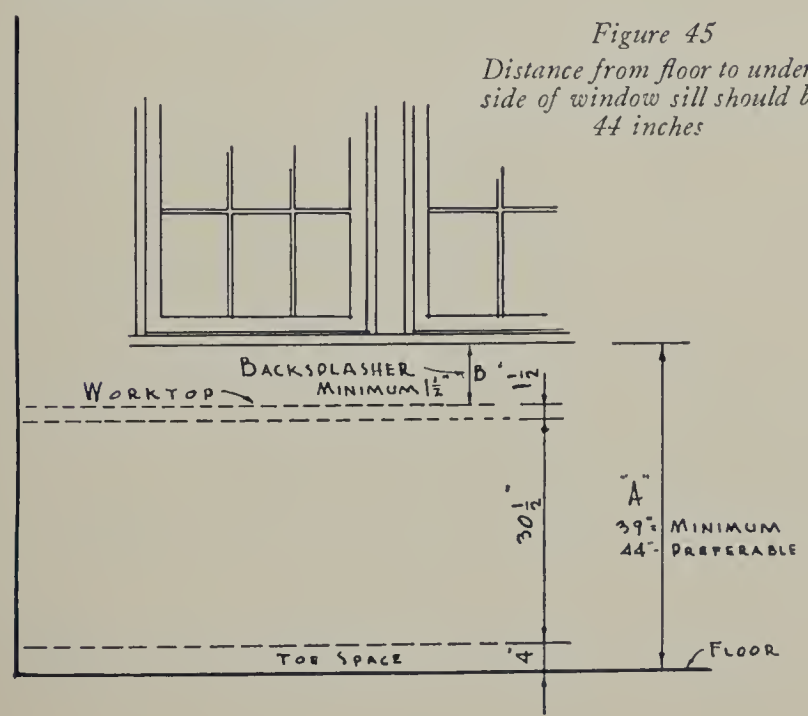


Figure 45
Distance from floor to underside of window sill should be 44 inches

Room Dimensions

The location of partitions will have a definite saving in cost of work surfaces and sinks. Standard work surfaces are 25″ wide. To assure this uniform counter width of 25″ on both sides, as well as on the end, the width of the "U" shape kitchen should be an even number of feet *plus two inches*. (See figure 46).

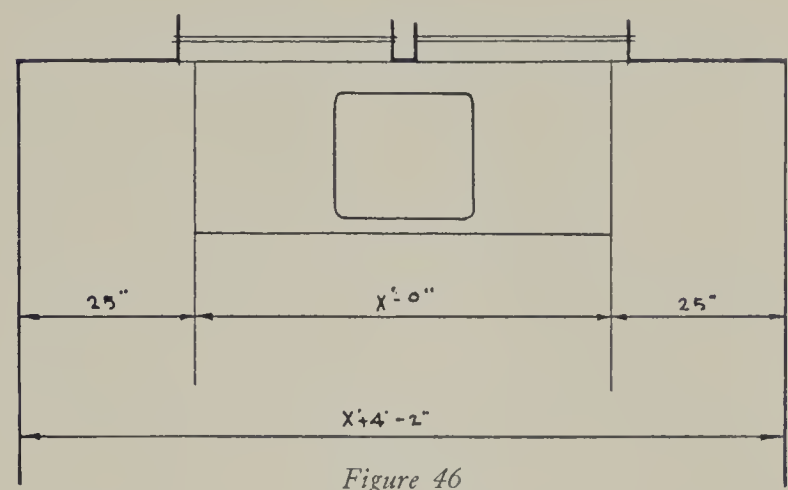


Figure 46

Because only one side of "L" shape or Broken "U" kitchens has counter space adjacent to end of kitchen, the over-all width of kitchen should be an even number of feet *plus one inch* (see figure 47).

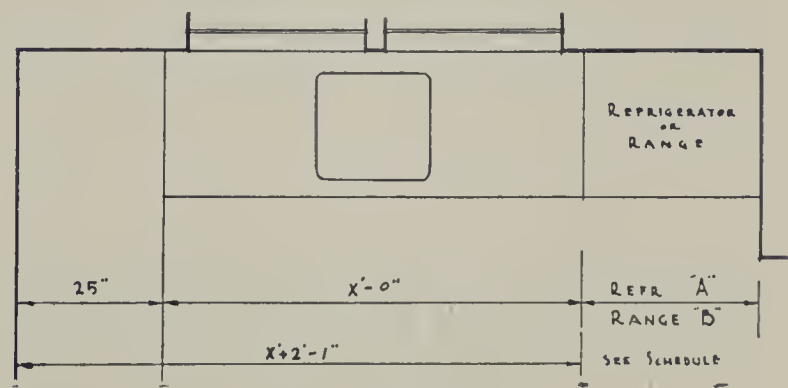


Figure 47

Broken "L," Two-Wall and Straight Wall kitchens should be even feet in dimension for the sink, plus the width of the range or refrigerator. (See figure 48). The application of this principle permits the use of standard length sinks which are made in even feet. Even feet also eliminate fillers in the cabinet schedules.

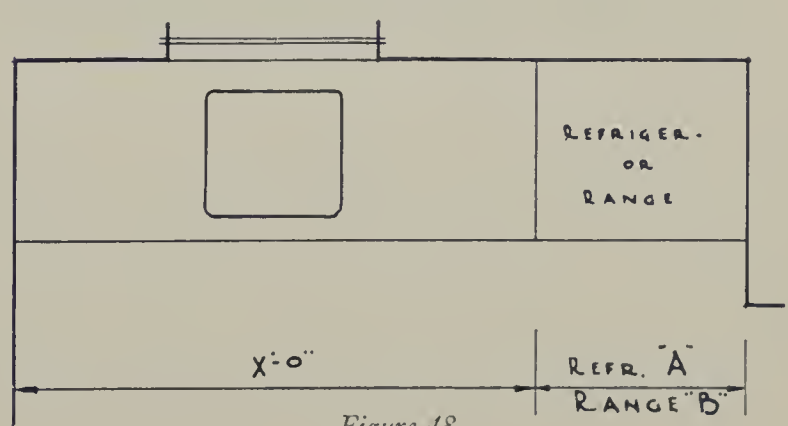


Figure 48

Chapter III

INSTALLATION DATA

Checking Corners

One of the first steps in kitchen installation is to check the corners of the room to see if they are square. As a rule, in residences already built, slight variations are apparent. Many of these can be eliminated with very slight scraping of plaster, or filling in with plaster to smooth up the wall. (Figure 49.) Instances will be found, however, where the rooms are badly out of square. In "U" or "L" kitchens with legs at least four

Figure 49

feet long, and a continuous one-piece work surface, it will be necessary to use a cap-strip at the top of the backsplasher to close the misalignment. If individual work surfaces for each center are used with the surface seal corner strip to close and seal the joints between—the counters can be opened a sufficient amount at either the front or back, as the case warrants, to care for the irregularities in the angle of the wall.

Checking the Floor

The next step is checking the floor to determine whether or not it is level. This is quite essential, as work surfaces must be absolutely level in order to prevent water from settling in low spots. If the floor is only less than an inch out of level, place shims under the bottom of the base cabinets.

In rare cases where the variation is great, it may be necessary to level up the entire floored surface. This is done by placing a new subfloor above the original. It is necessary to do this in extreme cases because variances greater than one inch, place a part of the work surfaces more than 37″ from the floor, which is too high for the average homemaker to work at conveniently.

Checking Walls

Walls that are out of plumb affect only the upper wall cabinets. These can be plumbed up easily by shimming out either the top or the bottom of the wall cabinets at the time of installation.

Should structural changes be necessary, such as moving doors or windows, this should be done before actual installation work begins.

ASSOCIATED EQUIPMENT AND MATERIALS

Cabinets

Kitchen cabinets are manufactured of both steel and wood. All-steel cabinets are made in

units, shipped completely finished. Many improvements have been made in cabinets of this material to make them quieter, more efficient, and of better appearance. The steel cabinet is a good investment.

Wood cabinets are of two types, the manufactured unit type and the millwork cabinet.

The former type is available both completely finished and unfinished. The finished unit is generally better, built of hardwood, properly kiln-dried. Painting at the factory seals them against moisture to a great degree. An added advantage is that the finish is sprayed on, which gives a finer, better appearing surface than paint applied with a brush. It is also found much easier to keep clean as the spray finish is smoother and has fewer and smaller pores in which dust and dirt may lodge. The unfinished cabinet is much lower in first cost, but when properly finished and equipped with hardware, very little is saved.

Millwork cabinets may be the very cheapest or the very best, depending entirely on the quality of both material and workmanship. Their serviceability depends entirely on the skill and care of the builder but they are usually crude in design and construction. High grade millwork is usually as expensive or even more so than is the best grade manufactured cabinet when hardware and finish are added. Many architects still use this type because they believe it is better to plan the kitchen interior after the home is erected and plastered. There is a growing tendency, however, to use manufactured units, as the advantages of standard size, better finish, more efficient design and interior fittings, such as flour and sugar bins and pastry drawers, are now more appreciated. Of equal importance, utensils and staples in packages are becoming standard in dimensions, thus making the use of standard size storage units both practical and desirable.

Base Cabinets

Base cabinets are of two types, the drawer type and the cupboard type. These are illustrated in Figures 50, 51, and 52 below.

Both have their advantages. Both are in general use. Drawer storage can be used for cupboard storage, but cupboard space cannot conveniently replace drawer storage for gadgets, small utensils, or linen.

Base Cabinets are 30½″ high and 24″ deep and are placed on a toe space 4″ high, which, with a counter 1½″ in thickness, makes 36″ from floor to top of counter.

Most manufacturers' base cabinets are shipped with a toe space or subbases, either of wood or steel. In cases where base cabinets are not furnished with toe space—or where the floor is very uneven—wood subbases can easily be installed. To do this place a strip of wood 4 inches high, and of any convenient thickness, at the back of the cabinet. Run a similar strip parallel to it, three inches in from the front face of the cabinet. Secure these strips to the floor; then place the cabinets directly upon them. These dimensions have been established as the most satisfactory toe space of 4″ in height by 3″ in depth.

Figure 50

Figure 51

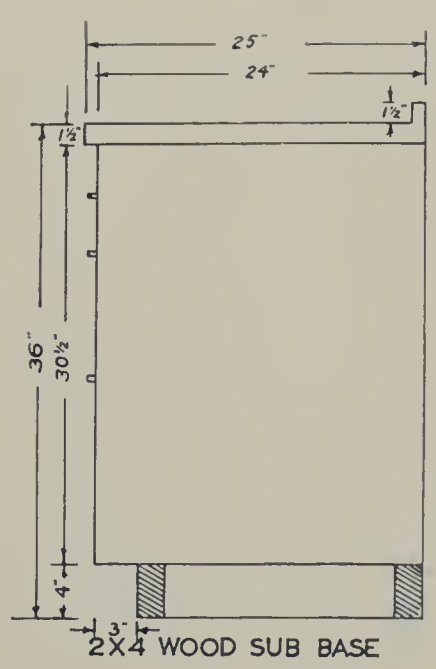


Figure 52

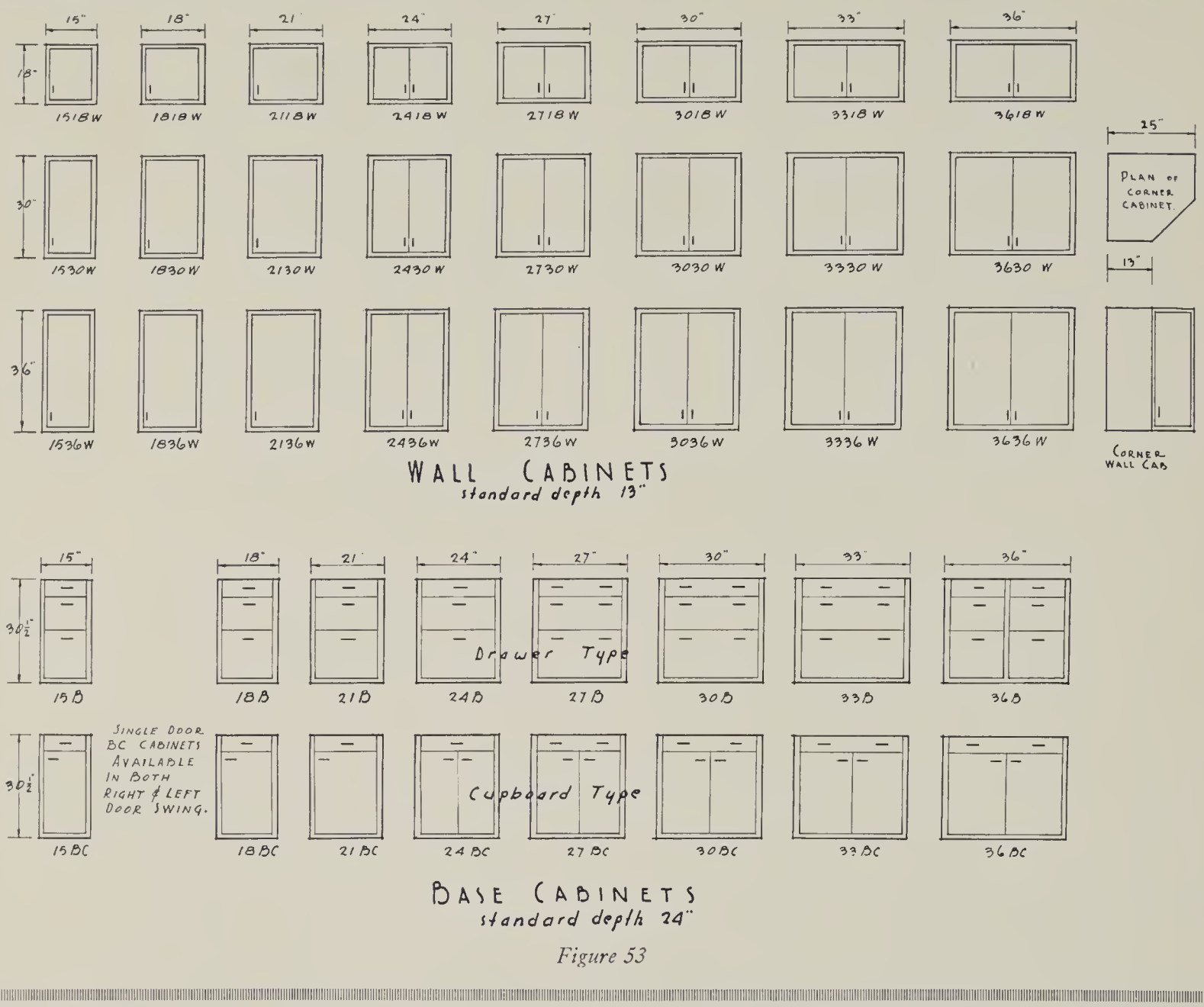


Figure 53

Wall Cabinets

Wall cabinets are also of two types—open and closed. The open-front cabinet is preferred by women who like to display colored china or pottery. The closed type is most popular because the doors protect the contents from dust and because the closed doors add to the orderly appearance of the kitchen. The latter are very often used in conjunction with one or two of the former type in which interesting pieces of china and bric-a-brac can be displayed to add color and atmosphere to the room.

The usual method of installing wall cabinets is to secure them to the studding by means of long screws. Enough screws should be used to insure complete rigidity.

Wall cabinets are available in a variety of heights and widths. The standard heights are 18″, 24″, 30″ and 36″. Standard widths are 15″, 18″, 21″, 24″, 27″, 30″, 33″ and 36″.

Standard Sizes

Figure No. 53 indicates the standard sizes of both base and wall cabinets. And these standard sizes are available in both wood and steel cabinets.

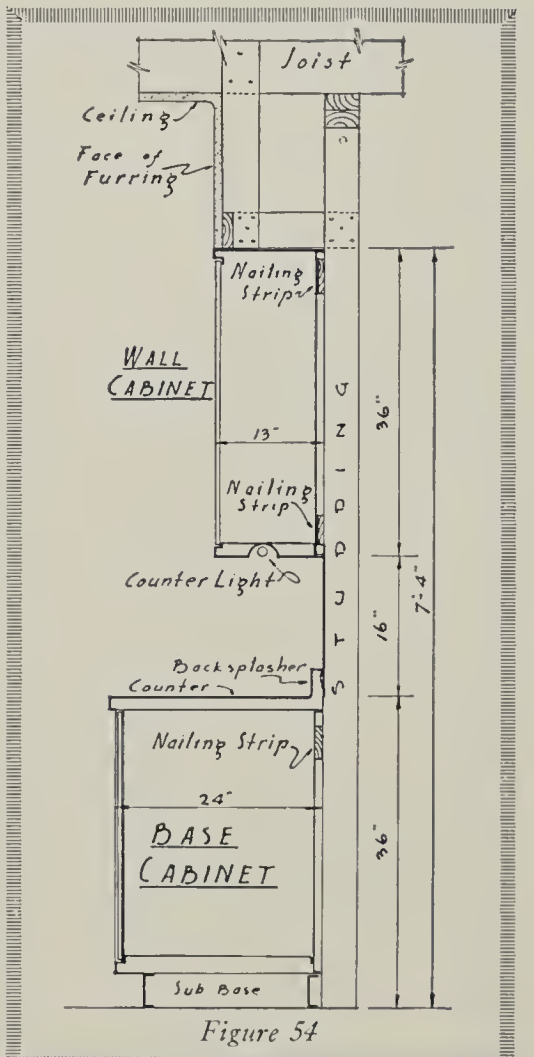


Figure 54

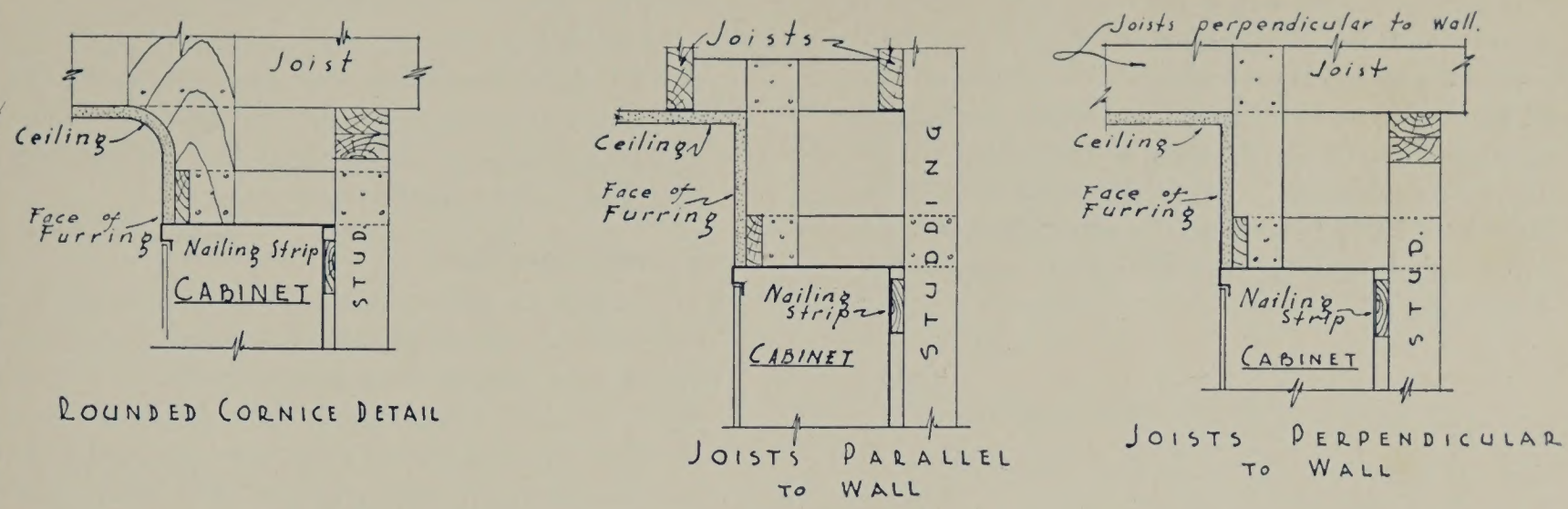


Figure 55

Sections of Installation

Figure No. 54 shows a typical system of cabinet installation.

On the wall sections, standard practice provides 16″ between the work surface and the upper cabinets. This is particularly true where wall cabinets are 36″ high. Where 30″ wall cabinets are used, this distance is sometimes increased to as much as 1′-8″. Of course, this change would vary the over-all height to the top of the upper cabinets.

Two points should be definitely considered, in establishing this height. (1) If the upper cabinets are too close to the work surface, the homemaker will feel cramped and crowded while engaged in food preparation. (2) It requires from 14″ to 18″ for food mixers—the average being 16″ in height. From 14″ to 20″ between the work surface and the underside of the wall cabinet, has been established as satisfactory height. Increases beyond 20″ are unsatisfactory from the homemaker's standpoint; for every inch the wall cabinets are raised increases the distance she has to reach to the shelves. If cabinets are more than 20″ above the work surface, the average homemaker cannot reach beyond the first two shelves.

Wall cabinets higher than 36″ have little value. It is better to have a greater amount of lower shelves, if possible, rather than increase the height of the cabinet and add shelves in that direction. For this reason most manufacturers establish 36″ as maximum height of standard wall cabinets. The use of a standard height base and work surface of 36″, plus 16″ between it and the wall cabinet plus 36″ high wall cabinet, makes an over-all height of 88″ or 7′4″. The top shelf is then 6′ 4″ from the floor.

Standard cabinets will not reach the ceiling of the average home. This open space should be furred down to eliminate a definite dust trap, make cleaning problems easier, and enhance the general appearance of the kitchen. Figure 55 shows three approved methods of furring down from the ceiling to meet the top of the cabinets.

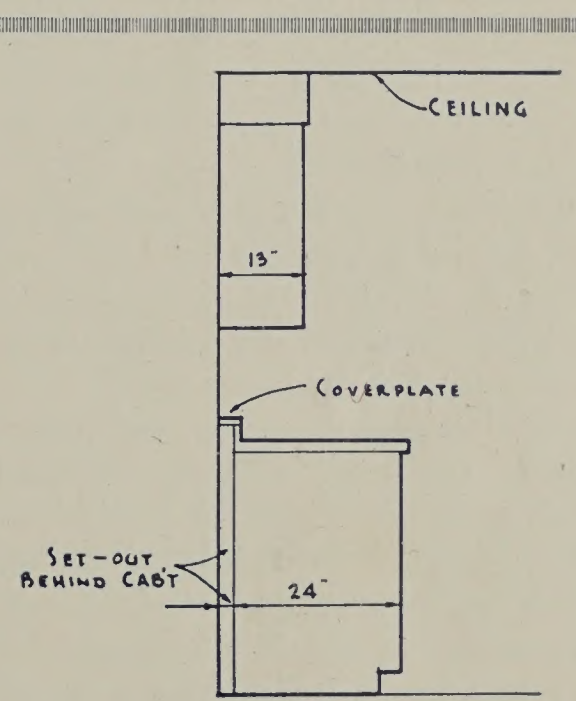


Figure 56

Standard Units in Odd-Width Rooms

To install a work surface in an odd-width kitchen that extends from wall to wall used to be a costly item—due to the use of special-length work surfaces and sink. A method of installation, however, has been developed which permits the use of a standard-length even foot work surface and sink top. Figure 56 indicates clearly how this is done.

Choose a size of sink and work surface as near as possible in foot length to room requirements. If the room is "U" shaped, deduct 4 feet and 2 inches from the total width to care for the counter widths of the two legs. Then select the largest even foot length for the sink section that will go into the remainder. The final remainder will be less than 10 inches. Set the base cabinets out from wall on each leg, half of the remaining total. See Figure 57.

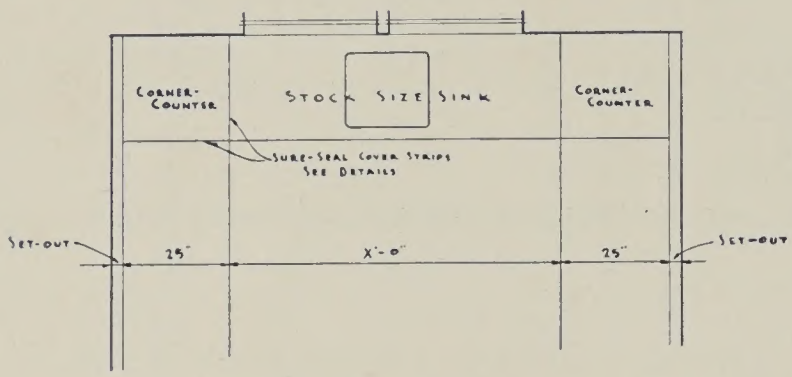


Figure 57

Example "U" Shaped Kitchen

14'-6" width of room
4'-2" width of leg work surfaces
10'-4" length of remaining width wall-to-wall counter
10'-0" largest even foot length for sink section
4" total remainder
2" distance base cabinets are set out from wall on each leg

A cap strip is used at top of work surface backsplasher and on exposed ends to close the opening. This can be a very definite advantage by using a cap strip at the top of a backsplasher of a counter to form an ideal condiment shelf.

In "L" shaped kitchens, the procedure is identically the same, with the exception that you only have to consider the 2'-1" width of one counter, and the total distance of the set-out is the total remaining on one side of the room.

This method of installation should only have to be resorted to in homes already erected. The matter of proper widths of rooms for new kitchens has been discussed in a previous chapter.

Work Surfaces

Work surfaces may be of wood, MICARTA, linoleum, tile, Monel, stainless steel, Prestwood. Each of these materials has its advantage, either from the standpoint of cost or effectiveness. Flat rimmed sinks may be installed in conjunction with any of these materials, to combine the work surface and sink into one integral part.

Wood and Prestwood counters are the most inexpensive. Linoleum and tile are of a slightly higher cost, but have the advantage of being less absorbent of liquids and sink acids.

MICARTA, Monel and stainless steel are slightly more expensive, but are well worth the difference in investment, due to their durability and appearance. These three materials insure long years of satisfactory service.

Corner Counters

The use of corner counters in "U" and "L" kitchens is often advisable because standard-length units can be used as work surfaces in both legs. Another advantage is that the cover strip conceals adjustments of variations caused by the walls not being at right angles to each other. (See figure 58).

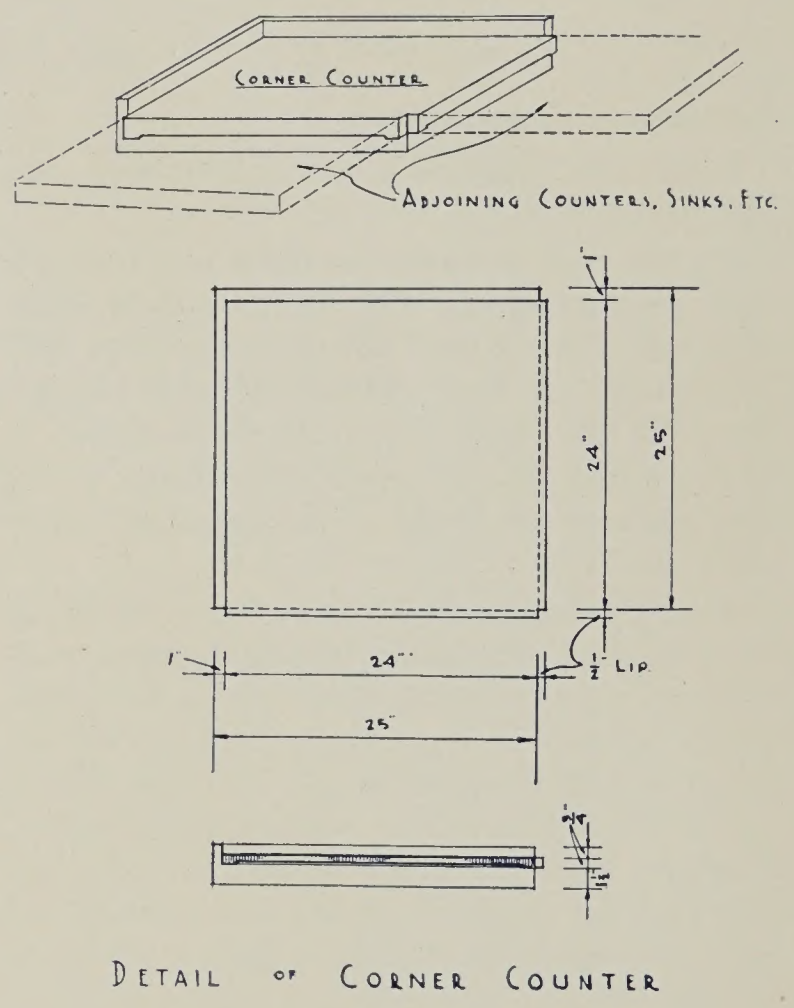


Figure 58

Sure Seal Cover Strip

This cover strip makes a sure seal between work surface tops of either like or unlike materials; has a knife edge and a very slight radius. (See Figure 59 for design.)

An absolutely tight seal is insured by fastening it securely with screws on one of the outer vertical edges of work surface with a small amount of mastic placed underneath. If pressure is used in making this attachment, the free edge has a tendency to roll down slightly. This guarantees a tight joint against the other counter, when the two are placed together and the work surfaces tightened down to base cabinets.

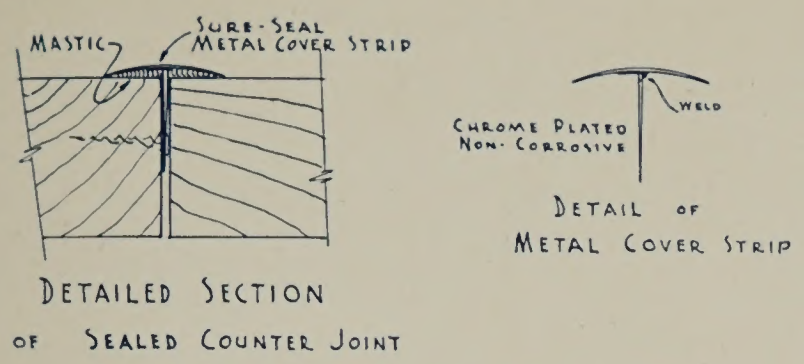


Figure 59
Sure seal cover strip

Floor Coverings

Floor coverings for kitchens are usually of rubber or linoleum. Both of these materials are produced in attractive colors and give excellent service when properly installed.

Wall Surfaces

Wall surfaces may be of Micarta, regular ceramic tile, glass, linoleum, composition sheet tile, Veos tile, or plain plaster painted. A choice of these materials usually depends upon the amount of investment the homemaker wishes to make. Painted walls are inexpensive and have the added advantage of being easy to redecorate frequently.

Linoleum, properly applied, makes a very excellent wall surface, and averages about 35 cents a square foot.

Standard ceramic tile is most ideal. But in houses already erected, the present plaster has to be removed starting from the studding up. The cost installed is approximately $1.25 a square foot. It is, however, a most permanent, easily cleaned and satisfactory wall surface.

Veos Tile

A steel tile finished in porcelain enamel. It is light in weight and can be applied directly over the present plaster. A special foundation sheet of Celotex, grooved to take the turned-in edges of each tile, is nailed to the studding. Each tile is cemented to this foundation sheet, then the entire surface grouted in with cement, filling the spaces between the tiles. The approximate cost is $1 per square foot.

Carrara Glass or Vitrolite

Colored glass having exceptional beauty, may be cemented to the old plaster or to composition board which has been securely nailed in place. Its cost of approximately $1.50 per square foot prohibits use except in more costly homes.

Synthetic Sheet Tiles

There are several makes of material in this class that make practical wall surfaces for kitchens. They are available in a wide range of color and can be installed at prices ranging from 40 cents a square foot up.

Micarta

Micarta has the advantage of color, and is most satisfactory sheet type of wall covering. The cost of this material varies somewhat, with the color and conditions governing the installation. It is a most ideal wall covering which is cemented to existing walls. It combines serviceability, beauty, and practicability at not too great a cost. It is another Westinghouse product for kitchen use.

WESTINGHOUSE HOME PLANNING DEPARTMENT

The information given in this manual has been developed by the Westinghouse Home Planning Department—during years of research and practical experience in home installation—and is now in general use by the trade, and has national acceptance.

We hope this information will prove valuable to you in developing plans for your clients' kitchens. If we can be of further service to you, don't hesitate to write us. We welcome the opportunity to help you with special problems.

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